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Volume II Number 2 October 1963

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DEVELOPMENT RESEARCH DIGEST

Volume II - Number 2 October 1963

A journal of
selected excerpts, summaries and
reprints of current materials on
economic and social development

Prepared by the NATIONAL PLANNING ASSOCIATION
Frances M. Geiger, DIGEST Editor

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THE PLANNING PROCESS: ITS ROLE IN THE DEVELOPMENTAL REVOLUTION

Kenneth R. Hansen

/From The Developmental Revolution in the Middle East; published and copyrighted © 1963 by the Middle East Institute, Washington, D. C., US$4.00. (A brief description of the Middle East Institute and of the other papers in this book appears beginning on page 83.)/

These are excerpts from the paper.

National planning -- like any other approach to achieving order and logic in the affairs of men -- is a many-sided and uncertain phenomenon. Clearly, several experiments in national development planning by the less developed countries have been unsuccessful. There have been false starts, where attempts have been made to draw up plans solely from exacting scientific calculus of economic and social behavior -- the so-called "paper" plans which gather dust today as many-volumed mementos of scholarly enterprise. We have witnessed several hasty pseudo-scientific foreign assistance shopping lists drawn up largely to elicit external financing. At the cynical extreme, we have observed the creation of so-called national plans which were thinly disguised treatises of political dogma and nationalistic exhortation. And, of course, implementation of national plans has ranged widely from failures to halting successes to enthusiastic repeat performances. Nonetheless, we find a growing

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embodiment of this approach in the institutions and political structures of those countries intent on achieving rapid economic growth and modernization. A question, then, arises of what lessons regarding national planning we can draw from the past and apply in the future.

Experience with national plans as such, has not validated the universal applicability of any particular methodology of plan formulation or any hard and fast doctrine of planning policy. Actual practice and implementation certainly have not lent credibility to the claim that adoption of a formal national plan is a guaranteed shortcut to economic and social development or an open sesame to generous loans and grants from abroad. Even rigorous post mortems of successful planning efforts have not led to the discovery of miraculous cures for sick economies or magic elixirs to dull the pain of the stresses and strains of social and cultural change.

Rather, out of nearly a decade of trial and error experience, we are coming to recognize that national planning as an instrument of economic development, social change, and political progress should be judged -- not by the technical excellence of published plans themselves, nor even by the nominal accuracy by which their predictions are fulfilled -- but by the contribution the planning process itself is making to the difficult and elusive task of modernization and nation-building. For even though we now readily recognize that national plans are often brittle and imperfect, and that the heterogeneous circumstances of their application do not permit broad generalizations of policy and procedure, there are underlying functional characteristics of national planning activities which encourage prescription of this process as a means of achieving progress. And, we recognize that this process has validity when it becomes a dynamic continuing feature of national decision-making -- whether explicitly embodied in a comprehensive national plan of a developing country or when the process occurs implicitly in a more or less decentralized price-market system common to the more economically advanced countries.

Accordingly, it is useful to consider what are the functional characteristics of the planning process which, when reasonably carried out, make the contribution of the planning process especially valuable to developing countries. It is in this context, too, that I suggest that we consider several of the emerging challenges which face the planning technician and his lord and master, the politician-administrator-entrepreneur, euphemistically referred to in the trade jargon as the "decision-maker."

Expanding Knowledge

By far the most pervasive function which lies at the heart of the planning process, whether formal or informal, is the systematic collection, recording, analysis, publication, and presentation of information

which adds to the store of knowledge of key individuals about their own country, its resources and institutions. Facts about the economy and the social and institutional forces and forms which dictate the ultimate use of material and human resources are the key building blocks upon which any meaningful national decision-making is based. And, the planning process of necessity brings into existence a system of collecting information and enables a flow of data to be made an explicit part of the apparatus by which in some degree both the public and private sectors determine their actions.

The design of this information-gathering and information-dissemination apparatus is a deliberate action; it cannot, by the very nature of the planning process, be left to chance and haphazard or parochial impulse. A planning administration -- whether highly centralized or decentralized -- needs extensive data about the essential resource picture of the economy. Concurrent with this, an overview of the various sectors must be obtained which will be detailed enough to point up and measure a large variety of intersectoral relationships. Technically, there must exist a basis for an examination of the structure and interaction of the various factors of production of an economy, price and income elasticities, transformation and production functions, and for an analysis of behavior.

Thus, the planning process induces an organized effort of information seeking and reporting -- directed not only at domestic factors but also extended to foreign markets, patterns of trade and international capital movements. Ideally, it services not only the immediate needs of the planning exercise itself, but provides new sources and forms of data for collateral interests. It should be a continuous and dynamic system; it should be self-correcting, provide for timely acquisition of new experience data, and be so designed that it provides not only static knowledge of what exists, but also information and insight on causal factors and future trends -- a picture of what is going on.

The educational result of this process -- among government officials, businessmen, students, the general public, and even representatives of foreign agencies and institutions -- is extremely important. It is a first concrete step toward a commonly held factual picture of an economy and society from which can be developed the superstructure of economic understanding, social awareness, and eventual political consensus necessary to a coherent national effort toward self-improvement.

Accordingly, for most developing countries the deliberate establishment of new and orderly mechanisms for information-gathering, with attendant collation and publication of data, is a basic prerequisite to mounting an attack on the problems of development and social change. This could, of course, occur without formal planning. But, if it does

nothing more, the planning process performs an inestimable service by inducing and accelerating this development.

Moreover, this growth of self-knowledge accelerates as the modernization process creates ever greater demands for the factual tools to understand and manage more complex and sophisticated industrial, commercial, agricultural and governmental undertakings. As this results, it becomes necessary to relate with increasing precision the resource picture to the social, psychological, cultural and political forces working for or against change.

Improved Understanding

Once this has been undertaken it becomes possible, in turn, to identify the possible impact of change on traditional behavior patterns and values. These factors must be judged so that the likelihood and desirability of changes of output and consumption, income distribution, and capital accumulation, as well as a host of other considerations, may be assessed with realism and imagination. In short, the planner turns to the task of identifying and costing the obstacles to specific achievement, as well as determining the dynamic forces which can be mobilized and their potential benefits measured.

This second functional operation of the planning process is not, however, so widely and publicly shared. The assessment, categorization, evaluation, and discussion of circumstances stimulating or impeding economic growth and social change, usually take the form of a protracted dialogue between decision-makers in the public and private sectors and the planners. But, the process of confrontation between technical and disciplined analysis, on the one hand, and intuition or partial judgments, on the other, is a crucial step toward development of a synthesis of judgment and harmonization of diverse public or private interests upon which initiatives for development must ultimately rely.

The degree to which these new considerations are injected into the national political dialogue -- either in the course of formulation of a national plan or upon its publication -- and the process of legislative adoption and enactment is of great importance not only for its educational effect but also because it can serve to induce the sense of participation in a national endeavor which is subsequently vital to the implementation of a national plan.

Throughout this process, too, the planners and decision-makers come to grips with the problems and obstacles to development which are normally not explicitly faced until the comprehensive overview required in national plan formulation has forced these problems to emerge. It is in this stage that it is possible, for example, to relate shortage of investment capital to the apparent inadequacies of infra-structural

facilities. The lags of social capital formation -- educational and health facilities -- can be appraised from the viewpoint of productivity and manpower requirements; patterns of consumption or savings can be related to the institutions influencing distribution of capital and means of income generation. On the purely technical side, it becomes painfully clear, for instance, that creating new jobs requires definite quantities of new capital investment, and this, in turn, indicates the nature and magnitude of future demands on the saving mechanism. The requirements of developing greater income incentives for production efforts, better transportation, and credit and distribution facilities, as well as enlarged technical services to achieve desirable levels of increase in agricultural productivity become apparent. Educational requirements, both general and technical, can be measured and related to specific requirements for skills and for greater efficiency. In turn, the entire structure of an educational system is measured against immediate and prospective demands not only for the output of trained people but, even more important, for the necessary inputs of teachers, equipment, and specialized curricula.

What lies beyond this stage in the functional planning process is the logical step of taking this new body of knowledge and testing alternative allocations of resources, using various assumptions concerning political, social and economic behavior. This is the "moment of truth" of the planning process; the time when the costs and benefits of different uses of resources -- at different levels of availability -- are evaluated and monitored by the practical limits of political acceptability and feasibility. This process constitutes an exploration of the possible combinations of government actions, which, together with probable behavior of the private sector, may achieve socially acceptable change and growth. The accumulated data and insights of earlier procedures are synthesized through the process of making judgments as to possible priorities, policies and specific targets which will ultimately represent the outline of the development plan.

Finally, there is the arduous process of formulating and devising the formal plan itself. At this juncture the relentless necessities for choice become compelling. Scarcities become recognized in a perspective which leads to the earnest search for alleviation. Existing policies and strategies are challenged and revised or adjusted to accord with conflicting objectives or priorities. Regulatory policies, social welfare activities, subsidies and incentives, taxes and tariffs, patterns of credit and monetary policies, pricing, debt servicing, and a host of other economic and socio-political phenomena are related to a set of principles and goals which emerge from the process of comprehensive and reasonably disciplined search for understanding and establishing a framework for action which underlies the planning effort.

The result, of course, is a formal development plan. Fashioned by study, debate, and an ever-growing dialogue about means and ends by economists, sociologists, bureaucrats, politicians, private entrepreneurs

and representatives of special interests -- good and bad -- the plan document which emerges represents a singular product of a process which, if based upon relatively widespread participation, has an incalculable impact on the decisions of a large number of key people and provides an explicit benchmark for their subsequent actions.

Thus, to the degree that this process has broadened understanding, increased communication, elicited cooperation, and stimulated new insights on the affairs of a nation or sectors of a society -- it has provided a better basis for progress than existed before. And, if the plan is put to subsequent use as a disciplined framework for decision-making -- as a guide to more efficient mobilization and utilization of resources, and as a comprehensible articulation of social values -- the dividends of the effort are multiplied. Even if the specifics of the plan are revised or even repudiated under the stress of changed circumstances in the future, the capability to adjust and revise finite targets and judgments will have been enhanced. In the last analysis, the national plan provides a focus, a forum, and a set of criteria for judgments which hitherto were largely haphazard, implicit, or untested by exposure or debate; it enables public issues to be identified and analyzed in terms of measured magnitudes, time-perspective, and causal interrelationships; and permits a new dimension of public awareness, appreciation and participation in the process of self-determination.

Now, lest my enthusiasm for the possible benefits of the planning process prove misleading, it must be made clear that these attributes do not flow automatically. Experience has shown that a plan drawn up in isolation from those who must understand and implement it does not have educational impact or form in itself the basis for future action. A plan which does not mobilize sufficiently the interest and participation of the key intellects, the opinion-makers, and the "doers" of the public and private sectors does not create the forum of national opinion upon which a consensus may be built. And, a plan which is not realistic enough to achieve a certain momentum of enthusiasm and broad public support will not survive beyond its publication as an instrument of policy and a spur to change.

A Wider Horizon for National Planning

One aspect of current planning efforts which should be more fully emphasized is the need for individual national plans to be fashioned with increased attention to external factors -- whether these are simply export-import balances, judgments of international comparative advantage, commodity stablization -- or the multi-national aspects of regional economic integration and long-term approaches to trade adjustment. Too often, national plans are formulated without the perspective of the international market place, regional specialization, and the need to accommodate both domestic investment decisions and economic policies to the growing impact of international interdependencies.

This need arises not only because these external factors represent large areas of uncertainty -- often lying beyond the control of the individual country -- but also because attention to the external developments in trade and finance can result in positive gains in the growth process. We are now participating in an era poised on the threshold of difficult but possibly massive changes in international trade relationships among the large industrialized countries and between them and the less developed areas. There is increasing scope for trade, and for a more rational international division of labor among less developed countries themselves.

In both of these processes may lie much more than the prospect of economic diversification -- important as that is for countries relying heavily on a few export commodities. It can mean that greater overall efficiency of resource use on an international scale can contribute to the growth rates of all countries. Deliberate rationalization of specialization by individual countries in the context of freer trade, as well as steps toward commodity stabilization and regional integration, can and should be injected into the investment and planning decisions of less developed countries. In many respects, this will be easy for them, because most of their investment will be new -- and most of it still lies in the future.

These comments are but examples of some of the many issues and problems which are raised by study of the planning process and its role in the developmental revolution. We all know that when any two economists get together, at least six points of view are expressed. But I hope these remarks will tend in some modest way to indicate that the so-called "gloomy" science looks with hope and not despair on the development process and -- through the medium of this evolving technology -- can be designed to make an even greater contribution to the developmental revolution.

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REGIONAL PLANNING WITHIN COUNTRIES

In recent years, attention has been primarily focused upon the preparation and implementation of comprehensive national plans by developing countries. However, virtually all developing countries contain certain geographical regions which require special development efforts either to realize quickly a promising resource endowment or for the opposite reason -- to prevent them from lagging too far behind the rest of the economy because they possess inadequate local development potential. Despite the need for such regional development plans in many developing countries, there are as yet few actual examples of planning efforts of this type. This section contains an article prepared for the Digest describing development planning for the Guayana region of Venezuela, which falls in the first category of local areas meriting special attention because their natural resource endowment promises unusual benefits for the national economy as a whole. This is followed by excerpts from an article analyzing some of the lessons to be learned from Italian experience during the past decade in trying to accelerate the growth of the second type of region requiring special efforts -- the poverty-stricken and previously nearly stagnant southern part of Italy (the Mezzogiorno), which had lagged far behind the dynamic and progressive northern part of the country.

DEVELOPMENT PLANNING FOR THE GUAYANA REGION OF VENEZUELA

Roberto Alamo Blanco and Alexander Ganz

This is an original article.

The Guayana region represents more than one quarter of the area of Venezuela, or about 300,000 square kilometers. According to the Census of 1961, the region had a population of 213,000 persons -- less than 3% of the total for Venezuela. In this vast and empty area, Venezuela is fortunate in having a combination of resources almost ideally suited for the needs of the next stage of her development. It is to exploit these resources that the Guayana Region Development Plan has been drawn up.

Description and Resources

The development of the Guayana region is being concentrated where the Caroni River, flowing north from Brazil, meets the Orinoco, flowing east from Colombia. Here are located the Orinoco Steel Mill, the ore-loading facilities of the Orinoco Mining Company and of the Iron Mines Company, and three settlements; while in the Caroni itself, just to the south of the spectacular Caroni Falls, is the Macagua Hydroelectric Dam. All of this focal development area falls within the newly established city of Santo Tomé de Guayana.

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The Guayana region is separated from the most densely populated areas of Venezuela -- the north coastal mountain range -- by 500 kilometers of sparsely settled plains. However, there are good road connections (currently being improved) to the rest of the country, and the Orinoco Channel, dredged to ten meters as far as Santo Tomé de Guayana, provides direct deep water access to the Atlantic Ocean, 250 kilometers to the east. To the south is open savannah country, encircled to the east, south and southwest by tropical forests.

The Caroni River represents potential (utilizable) hydroelectric power of about 10 million kilowatts -- one of the greatest potentials of any river in the world. The existing Macagua Plant No. 1 has an installed capacity of 350,000 kilowatts. The great Guri Dam, to be put into construction shortly, may ultimately be able to develop up to 6,000,000 kilowatts.

Agriculture in most of the Guayana region has been restricted to subsistence farming and cattle raising because of the limited natural fertility of the soil (except in the Orinoco Delta) and the area's remoteness. The greatest geological wealth of Guayana lies in its minerals. High quality iron ore (60% pure) abounds -- altogether, there are 1.3 billion tons of proved deposits, with the possibility of further discoveries. There are prospects for other minerals including manganese, nickel, chrome and industrial diamonds, and gold. There may be resources of bauxite, and deposits of aluminum laterite are being investigated.

Within a radius of 300 kilometers are petroleum fields with proved reserves of over 2.2 billion barrels of oil, and more than 320 billion cubic meters of gas. Oil is already available in Santo Tomé de Guayana by pipeline, and a gas line will be built when justified by demand. Within the same radius are large coal mines, and deposits of salt, sulphur-bearing minerals, and kaolin.

This exceptional constellation of resources is complemented by transportation advantages -- the roads and the Orinoco Channel already mentioned; short railroads, one on each side of the Caroni, serving the city itself; a major regional bridge to be built across the Orinoco at Ciudad Bolivar; the Caroni Bridge at Santo Tomé de Guayana (to be opened for traffic in the early spring of 1964); and the new Port of San Felix, whose first stage will be ready early in 1964.

The Setting and General Purpose of the Regional Plan

Due largely to the exploration, production and export of petroleum, the Venezuelan economy has grown at the rate of 7% per year over a twenty-five-year period -- a virtually unequalled long-sustained high growth rate. However, growth in the field of petroleum cannot be expected

to continue at its past rate. This implies a possible future diminished growth in foreign exchange earnings, public revenue and overall investment. At the same time, Venezuela's present population of some 8,000,000 is growing at an annual rate of over 3% -- one of the world's highest -- and will roughly double in the next twenty years. To continue its past rate of economic progress Venezuela must quadruple its output of goods and services in the next twenty years.

The key to achieving this goal is Venezuela's industrial production, which must expand at the rate of at least 12% a year. Such growth can only be achieved by substantial diversification of Venezuelan manufacturing industry. Although the country's industrial base is one of the most dynamic in Latin America, it is now characterized by final assembly based on substantial imports of basic and intermediate products. These industries have increased employment and raised the standard of living, but have also accentuated import demand without contributing to export earnings of foreign exchange.

For Venezuela to move forward, there must be an increase in industrial production of metals, petro- and electro-chemicals, and heavy and light machinery to supply the growing Venezuelan economy with basic and intermediate products. It is this urgency for industrial diversification and substantial new exports that has led to a priority role for the development of the Guayana region in Venezuela's recently promulgated National Plan.

The Guayana region's combination of mineral resources, abundant cheap hydroelectric power, available oil and gas, and transportation advantages make possible production of the basic goods for the next stage of Venezuela's development. Primary metals, electro-chemicals, heavy machinery and equipment, pulp and paper products, and construction materials can all be competitively produced in the region. For more than two years, each of these possibilities has been examined in detail. This analysis has produced a favorable forecast for an efficient and competitive industrial complex in the Guayana region serving the internal needs of the Venezuelan economy and providing exports to other Latin American countries and the world.

Guayana Region and the Latin American Free Trade Area

The Guayana Region Economic Development Program is a pioneering effort in comprehensive industrial development. It could be an important determinant of Venezuela's role in the Latin American Free Trade Area (LAFTA), assuming that Venezuela becomes a member and that LAFTA is able to achieve its ultimate goal of an integrated Latin American market without significant internal barriers to trade. Since Venezuela has one of the largest import capacities of any Latin American country, and provides a prime market for the import of machinery and equipment (accounting for

more than one-third of all Latin American trade), Venezuela's participation could be an important factor in the successful development of LAFTA.

Industrial development and exports of the Guayana region can substantially improve the conditions for Venezuela's participation in LAFTA by establishing her potential position as a net exporter of metals and metal products, electro-chemicals and heavy machinery, and as a net importer of other machinery and equipment. The prognosis of the United Nations Economic Commission for Latin America that production of metals, chemicals and productive machinery in Latin America will by 1975 be larger than the total present value of all manufacturing output underlines the potential role that this region could play in the development of Latin America.

The Corporación Venezolana de Guayana

The responsibility for programming the integrated economic development of southeastern Venezuela lies with the Corporación Venezolana de Guayana (CVG), an autonomous Venezuelan Government authority created in December 1960. The Presidential Decree establishing the Corporación Venezolana de Guayana culminated a process begun years earlier. Consolidating the functions of several previous bodies, the CVG has been given a broad grant of authority to develop the Guayana, including the following specific planning, financing and operating responsibilities:

(1) To study the resources of the Guayana;

(2) To study, develop and organize the hydroelectric potential of the Caroni;

(3) To program the integrated development of the region, in accordance with the norms and framework of the Venezuelan National Plan;

(4) To promote the industrial development of the region with respect to both the public sector and the private sector;

(5) To coordinate the activities of all Government agencies operating in the social and economic field in the region;

(6) To contribute to the organization, programming, development and functioning of public services in the region; and

(7) To undertake other tasks delegated by the Executive Authority.

The CVG is now one of the largest industrial concerns in Latin America, with assets of $400 million equivalent. Of this total, $325 million consists of fixed, highly productive wholly owned assets, mainly

a large integrated steel mill and a hydroelectric power facility. With virtually no long-term debt, so that it will be able to borrow in the future on a large scale to finance industrial expansion, and with the high-yielding character of both its present and its planned projects, the Corporación has a sound financial position.

The CVG is made up of four operating divisions, and a staff planning division.

The Steel Division had by mid-1963 virtually completed construction and installation of the Planta Siderurgica del Orinoco (Orinoco Steel Plant), was embarked on the first year of production of a broad range of steel products, and was preparing to be "spun off" as an autonomous subsidiary operating corporation. The steel mill began production of pig iron in 1961 and of steel in 1962. In 1963, it is expected to turn out 300,000 tons of finished steel products, filling export orders from Japan, Italy, Spain, the United States, Puerto Rico, Argentina, Colombia and Panama, as well as Venezuela itself. The rated capacity of the mill is 750,000 ingot tons of steel, and with the adoption of certain technological innovations could be raised with relatively little additional investment to 1,200,000 tons. For 1970, steel production targets are 2,500,000 ingot tons and for 1975, 4,500,000 ingot tons. The plant has a management advisory contract with the Koppers Company.

The Urban Development Division is an operating unit charged with the direction and supervision of all construction in the new city of Santo Tomé de Guayana, whose population has grown from 4,000 in 1950 to 40,000 in February 1961 and 50,000 in August 1962, with a projected growth to 100,000 by 1966, 250,000 by 1970, and 400,000 by 1975. The Division is now directing and supervising the building of the Caroni River bridge, the San Felix Port, a water and sewage system, schools, industrial parks, office buildings, shopping centers, new urban neighborhoods, and 3,000 housing units for 1963 and 1964. Public works and urban development projects are being erected by private builders under competitive bids. Housing construction is being financed by both private builders and a number of Venezuelan public housing agencies.

The Hydroelectric Power Plant Operating Division is responsible for operating the existing Macagua Plant Number One, which is supplying the power needs of the present phase of industrial activity in the region.

The Caroni River Development Division is building the Guri Dam, which in its first stage (expected to be ready in 1968) will have a generating capacity of 350,000 kilowatts. By installing additional generating units in a second stage, the capacity could be raised to 1,750,000 kilowatts without necessitating any increase in the height of the dam. The dam has been planned and designed by Harza Engineering Corporation of Chicago, as consultants to the CVG. Kaiser Engineers recently won

the international competitive bid for construction of the dam, whose foreign exchange cost will be financed by the World Bank.

The Staff Planning Division itself has five constituent groups:

(1) The Economic Programming Group has prepared the long-term investment and development program, formulated the role of the Guayana region in the Venezuelan National Plan and in the Latin American integration movement, and, for the important Orinoco Steel Plant, has projected steel demand and programmed the expansion of productive capacity. These plans are coordinated with the Central Planning Coordination Office of the Venezuelan Government, and are a key part of the National Plan.

The group has also organized joint ventures for aluminum smelting and phosphorus reduction. To attract private enterprise, it has prepared and distributed widely a Portfolio of Investment Opportunities summarizing some 30 potential investment projects in agriculture, heavy and light industry, construction, housing, transport, commerce and service fields. For the purpose both of industrial planning and promotion, and of projecting the economic base of the new city, the group has carried out market surveys and pre-feasibility studies, and has contracted with expert groups for feasibility studies, an industrial census, and surveys of family income and expenditures, of population and employment characteristics, and of housing characteristics. The group has also developed an integrated regional accounts analysis.

(2) The Urban Design Planning Group has prepared a Master Plan for a city designed both to serve the needs of the developing industrial complex and its population and labor force and to attract the professionals, technicians, investors, industrialists, managers, educators, builders and skilled workers needed to achieve regional development goals. Such a master plan has been badly needed because the population has been expanding at the rate of a thousand a month, many people finding shelter only in the rapidly sprawling squatters' ranchos. While proper housing will not be built fast enough to eliminate these slum shacks soon, the Plan provides for new residential communities which will in time be adequate to meet housing demands. The Plan provides also for a new central business district and subsidiary commercial centers, schools, parks, cultural and recreational facilities, roads, bridges, ports and public utilities, all designed to support the city's future growth. To keep social overhead capital costs as low as possible in comparison to directly productive investments, private initiative and commercial leasing arrangements (similar to those commonly employed in new urbanization in the United States) have been given the widest possible role.

(3) The new urban government to be established this year will have the power to enact land use control ordinances based on the comprehensive city plan. This program is the task of the Urban Government Planning Group, which has made special studies of land use patterns so that

land may be released for urbanization in a way that will both stimulate private initiative and permit reasonable financial returns to CVG to help meet the social overhead costs of urban development.

(4) The Human Resources Development Group was established in recognition that Guayana symbolizes the construction of a new way of life for the people of the region, and that industrialization must, therefore, be accompanied by major programs for education, health, recreation and social improvement. The group has planned primary, secondary, technical school and university level education geared to the needs of the industrial complex. Newspapers, library facilities, a natural resources research institute and television and radio communications have also been programmed.

(5) Finally, a four-year capital and current operating budget process has been instituted by the Budget and Finance Programming Group.

The Harvard-M.I.T. Advisory Group

Under a contract with the CVG commencing in 1961, the Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University maintains a resident professional staff of approximately seventeen persons which plays an advisory role with respect to (1) economic development and industrial programming for the new region, and (2) urban design and urban development. The Harvard-M.I.T. group is also charged with the training of Venezuelan personnel in the techniques and methodology required for these tasks. The Harvard-M.I.T. Guayana Project team has had an important part in the formulation of the perspectives for Venezuelan participation in the LAFTA; the definition of the contribution of the Guayana region to the National Development Plan; the preparation of the Guayana Region Investment Program; the programming of the energy and mineral resource-oriented heavy industry complex and the component industrial projects; the design of a Master Plan for urban development; the preparation of a transport program and a housing program; and the formulation of a human resources development program.

Planning Methodology

The approach adopted for programming the Guayana region's development follows customary development planning techniques. It is novel, perhaps, only in the sense of being one of the first planning operations undertaken in Latin America for a complete, integrated regional industrial complex designed to make use of newly available resources and power.

Until 1960, the Guayana region was literally empty, containing less than 3% of the population of Venezuela, and producing only 2% of the country's goods and services. The region could have been forgotten and

neglected, were it not for the compelling reason of its great potential contribution to the economic growth of Venezuela and Latin America.

This fact lies behind the first main aspect of the programming technique adopted: the primary focus of programming for the Guayana region has been on its potential contribution to the Venezuelan economy, through industrial diversification and through a substantial expansion of exports. For Venezuela as a whole, the allocation of investment and of the labor and productive resources of the country must be oriented, in the first instance, to the prospective demands of the national economy (whether for consumption, for investment or for export). In the case of Guayana, therefore, the prospective demands of the region were of secondary importance.

With this focus, the very first step in programming the development of the Guayana region was the selection of a list of possible industries and industry complexes that could be established on the basis of the region's resources. This list of potential heavy industry projects was then subjected to a preliminary process of selection in the light of a number of criteria. These included Venezuelan and world demand for each industry's products; minimum economic scale; complementarity between the industries, and the linkages deriving from joint operations; their competitive costs; transportation factors; and the influence upon each potential industry of the existence, in their initial stages of development, of a hydro-power facility, an integrated iron and steel complex, and a basic aluminum smelting project. This preliminary review indicated which of these potential industries would enjoy in Guayana advantages in scale, technology, low-cost and high-quality resources, transport facilities and economies resulting from linkages and complementarity, and therefore would be likely to have a favorable competitive position that would accord well with Venezuela's targets for national growth and export.

The selected preliminary list of industrial projects covered basic metals, including iron and steel, sponge iron, and aluminum; other metals and metal products; heavy machinery and equipment; electro-chemicals, including electrically reduced phosphorus; construction materials (for the requirements of the Guayana region); and pulp, paper and other forest products (as a marginal complement to basic production elesewhere in Venezuela). Because of Guayana's distance from mass consumer markets, the establishment of market-oriented light industries, including light and medium mass-produced machinery and equipment, was not specifically included in present plans.

For each of the selected projects, preliminary targets were established on the basis of long-term demand both for Venezuela and for the world. Based on the projected course of demand for their products, estimates

were arrived at (i) for each industry's actual production (in terms of volume, value, and value added), (ii) for their investment requirements, (iii) for the labor force they would need (including its occupational composition), (iv) for their consumption of electricity, and their capacity demand for it, (v) for their requirements for space, and (vi) for their required location relative to the various features of the Guayana region.

The estimate of employment in the basic heavy industries served as a basis for calculating employment in supporting manufacturing and service activities in the region. These figures made it possible to project the necessary growth in the population of the city and the Guayana region, thus providing preliminary basic data for the urban designers and city planners.

This completed the drawing of a preliminary sketch of the main focus of the region's development. Thereafter, the method of programming became a process of study and restudy in greater depth and scope.

A major systematic long-term demand study, covering the world, Latin America and Venezuela, was carried out for iron and steel, aluminum, machinery and equipment, phosphate fertilizer and pulp paper. This stage yielded a first view of Venezuela's potential role in LAFTA; namely, that of a substantial net exporter of basic metals and metal products, and a substantial net importer of machinery and equipment (with marginal exports of heavy machinery and equipment).

The growth and structure of Venezuelan manufacturing industry over the long term was systematically projected, on the basis of knowledge of consumer demand and demand elasticities, export goals, import substitution needs, investment requirements, and targets for output of intermediate products. This was undertaken for two reasons: first, in order to relate the industrial production targets of the Guayana region more adequately to those of the Venezuelan economy as a whole, and second, to provide a valid base for estimating industrial requirements for energy and electric power.

In the subsequent stages of programming, total long-term investment requirements for the region were estimated. These included total requirements for resource development, for heavy industry and other manufacturing industry, and for housing, transportation, public utilities, the city center, other commercial centers, and other service activities. Regional demand for consumption of goods and services was projected, and a tentative judgment arrived at on the share of that demand that could be met by the region itself. After this, a complete picture of the economic structure of the Guayana region was projected, including the production of goods and services, and covering the region's expected economic activity, employment, income distribution, industry location, and

types of housing requirements. A complete but preliminary pattern was developed of the region's demand (covering consumption, investment and exports) and supply (production and imports). Finally, a preliminary financing program was set out, and related to the known requirements of and the prospects for, the economy of Venezuela as a whole.

To sum up, the programming of the Guayana region industrial complex began with the selection of projects, and concluded with the setting out of the whole regional demand structure.

The Guayana Region Investment Program and the Venezuelan National Plan

The comprehensive Guayana Region Investment Program, 1963-66 and 1963-75, was completed in November 1962. It forms part of Venezuela's National Plan. Investment in the region is programmed to total Bs. 3,200 million ($705 million) in 1963-66, and Bs. 12,100 million ($2,665 million) in 1967-75, accounting for 10% of total Venezuelan investment in both periods. This is not an inordinate claim on national resources for a region that by 1975 is expected to provide one-fifth both of the country's manufacturing production and of its exports.

SUMMARY OF ESTIMATED FIXED INVESTMENT REQUIREMENTS FOR THE GUAYANA REGION

	1963-66		1963-75	
	Millions of Bolívares*	Percent Distribution	Millions of Bolívares	Percent Distribution
Total Fixed Investment Requirements	3,166.2	100.0	15,281.2	100.0
Resource Development	982.3	31.0	2,751.3	18.0
Industry	1,073.2	33.9	6,979.2	45.7
Heavy Industries	996.2	30.5	6,031.2	39.5
Other Manufacturing & Construction	107.0	3.4	948.0	6.2
Housing	435.3	13.8	2,594.1	17.0
Public Utilities	113.2	3.6	413.2	2.7
Transportation	450.3	14.2	1,743.1	11.4
City Center	9.5	0.3	215.8	1.4
Other Commercial Centers	20.0	0.6	171.4	1.1
Other Public Facilities	77.5	2.4	408.2	2.7
Industrial Estates	4.9	0.2	4.9	0.0

* One Bolívar equals US$0.22.

The Guayana region's role in Venezuela's industrial development is perhaps even more important than the one-fifth share projected for 1975 might indicate. To achieve its growth targets, Venezuela must expand its manufacturing production fivefold by 1975, diversifying its present manufacturing structure by increasing the output of metals, machinery and chemicals from their present 17% share of total industrial production to 33% of the total by 1975. The Guayana industrial complex is programmed to account in 1975 for 55% of all metallurgical, chemical and productive machinery output in the country.

MANUFACTURING PRODUCTION BY ECONOMIC SECTOR

	Venezuela (Millions Bs.		Santo Tomé de Guayana at 1957 prices)		Santo Tomé de Guayana as percent of Venezuela	
	1960	1975	1962	1975	1962	1975
Foodstuffs	618	1,645	0.7	---	0.1	---
Beverages	260	744	---	183	---	6.5
Tobacco	135	419	---	---	---	---
Textiles	210	1,356	---	2	1.0	0.2
Footwear & Clothing	290	855	0.7	39	0.2	4.6
Rubber Products	47	308	0.1	1	0.2	0.3
Furniture	180	742	1.0	8	0.6	1.1
Leather Products	35	176	---	---	---	---
Paper and By-Products	66	587	---	83	---	10.4
Wood	67	210	2.1	---	1.9	---
Chemical Products	185	1,058	0.3	72	0.2	6.8
Non-Metallic Mineral Products	228	695	0.5	77	0.2	11.1
Metal Products	161	2,163	50.0	2,060	31.0	95.2
Machinery & Transportation Equipment	160	1,832	1.2	688	0.8	37.6
Graphic Arts	173	1,296	0.2	15	0.1	1.2
Miscellaneous	131	1,377	0.1	13	---	0.9
Total	2,946	15,463	56.9	3,241	1.9	21.0

Reflecting the anticipated role of the Guayana region in the Venezuelan economy, and in LAFTA, extra-regional imports and exports are expected to account for an unusually large share of the region's economy. By 1975, for example, extra-regional sales may account for 40% of Guayana's demand, and extra-regional purchases for 27% of Guayana's supply, in

contrast with 19% exports and 15% imports projected for the Venezuelan economy for that period.

Among the resource based industries to be developed in the Guayana region to achieve national needs and goals the following are the most important:

PRINCIPAL TARGETS FOR THE GUAYANA REGION, 1975

	Unit of Measure	Production	Exports
Electric Power Capacity	Thous. kilowatts	2,050	850*
Steel (Finished Products)	Thous. metric tons	3,860	1,320
Reduced Iron Ore	" " "	10,000	8,200
Aluminum (Ingots)	" " "	200	140
Magnesite	" " "	20	20
Manganese	" " "	30	30
Elemental Phosphorus	" " "	60	60
Ammonia	" " "	80	80
Nitric Acid	" " "	15	---
Ammonium Nitrate	" " "	20	---
Chlorine and Caustic Soda	" " "	20	---
Oxygen	" " "	400	---
Heavy Machinery	Millions of Bolívares	2,000	700
Construction Materials	" " "	200	---
Pulp and Paper	Thous. metric tons	130	---
Light Manufactures	Millions of Bolívares	500	---

* To central region of Venezuela.

Steel. The predominant element in the present industrial activity of Santo Tomé de Guayana is the national steel plant owned by CVG. At a capacity of 600,000 tons of finished products, about half the output of this integrated and technically advanced plant would consist of seamless pipes, the remainder being made up of reinforcing rods and bars, structural shapes, rails, wire, cast iron pipe, and foundry and other products. Further to diversify output, a semi-continuous sheet and strip rolling mill is now being projected for the first stage of expansion.

With economic growth, the composition of steel demand may be expected to change, favoring steel for consumer durable goods, automobiles, tinplate for cans, and machinery and equipment. To this would be added exports both of steel itself and of heavy machinery and equipment made from

steel. Such developments are in line with the prospect of Latin American steel demand rising from the present level of 12 million tons a year to 32 million tons by 1975. The limits on Venezuelan production to meet this demand would be set by the rate at which steel capacity could be expanded, and by the problems of achieving sufficient scale in producing automotive equipment and light and medium machinery.

The abundance of available power indicates the desirability of constructing in the next few years a plant to convert iron ore into reduced or sponge iron, primarily for export. (Iron ore is now being exported from Guayana in its raw state.) Such a plant might produce about 5 million tons a year by 1970, and up to 10 million tons by 1975. A feasibility study is also being made of the desirability of producing ferro-alloys.

Aluminum. The enormous available supplies of hydroelectric power lend themselves ideally to the reduction of aluminum. Construction of a plant for this purpose, to be owned jointly by the CVG and the Reynolds Aluminum Company, is expected to begin soon. The plant is to be of an advanced design, producing aluminum directly from bauxite. Plans call for a total output of 12,500 tons in 1966, 100,000 tons in 1970, and 200,000 tons in 1975, when it is hoped that 140,000 tons can be exported, mainly to meet demand in a Latin American market that is then expected to consume 400,000 tons of aluminum annually.

Heavy Machinery Complex. It is expected that the presence of a steel mill and aluminum plant, and the other advantages of the region, will encourage the establishment of enterprises to produce the simpler types of heavy machinery and equipment. Traditionally produced on an essentially custom basis, with heavy reliance on subcontracting, these products can be made economically at a relatively low unit volume of output. Present targets for heavy machinery and equipment industries to be established are: grey iron foundries, steel foundries, forge shops, machine shops, metal fabricating shops, engineering design and assembly enterprises, and others. The 1966 targets envisage the establishment of fourteen enterprises; the 1975 targets are projected as the product of 33 firms (26 manufacturing components), employing 19,000 persons. Most of this production would be for the Venezuelan market.

Electro-Chemical Complex. The mineral resources, nearby petroleum and accessibility of Guayana make it a very favorable location for electro-chemical industries. A contract for feasibility studies, looking toward a later joint venture, has been signed between CVG and the International Ore and Fertilizer Corporation, a large international electro-chemical firm. The company will study the feasibility of producing elemental phosphorus, ammonia, phosphate fertilizer and sodium.

Pending the results of these studies, preliminary projections anticipate a plant capable of producing 20,000 tons of elemental phosphorus

in 1966, and perhaps 60,000 tons by 1975. The necessary raw materials are easily available, and Santo Tomé de Guayana also enjoys low-cost power and good transportation. World demand for elemental phosphorus seems certain to grow rapidly, as it is a principal ingredient in the manufacture of fertilizers needed in ever-increasing amounts to feed increasing populations, and has additional uses (as in the manufacture of detergents).

Another enterprise suggested by preliminary studies could produce caustic soda and chlorine, needed by a number of other proposed plants, including a pulp and paper plant, a vinyl chloride plant, a magnesium plant, an ammonia complex and several other users. The projected output of 20,000 tons of soda and about 18,000 tons of chlorine would be large enough for efficient production.

An ammonia plant designed to produce for Guayana's own needs, and for export, would use natural gas as its principal raw material. By 1975, about 80,000 tons of ammonia might be used in making fertilizer for export, and another 20,000 tons in making nitric acid for use by the steel mill and other local consumers. Other plants that seem likely to be economic include enterprises to produce acetylene and vinyl chloride resin, both largely to serve the local market.

Pulp and Paper. Local resources of timber, water, power and transportation, and the possibility of producing caustic soda and chlorine, indicate the feasibility of establishing a mill to produce bleached kraft pulp. In view of Venezuela's 1961 imports of 100,000 tons of paper and 60,000 tons of pulp, a mill producing initially about 65,000 tons of paper pulp would seem assured of a market, and would benefit from economies of scale.

Mining. Mining production in the Guayana region would have to increase by 150% by 1975, in comparison with the 1960 level, if targets for metals production and metals and minerals export are to be achieved. Four-fifths of these requirements (which could be larger if further commercially exploitable deposits of minerals are proved) consist of iron ore.

Construction Industry. Building a city for 400,000 people in about a dozen years will require the mobilization of a tremendous amount of construction activity. In addition, it will be necessary to build the industrial plants destined to provide the life blood of the region.

Preliminary and partial estimates of construction requirements indicate that in the years 1963-66 alone Bs. 1,866 million ($415 million) will be expended for construction, with Bs. 6,244 million ($1,388 million) needed in the years 1967-75. By far the largest single item is the Guri Dam, costing Bs. 600 million ($133 million), but the various

industrial plants will, in sum, involve even larger expenditures over the next decade than Guri. It appears quite certain that the construction materials industry will become one of the largest in the region. Already three sawmills and eight other building materials plants are operating in Santo Tomé de Guayana.

Agriculture. Future development of agriculture has not been fully projected at this time, although studies are presently being carried out by a number of the ministries and agencies concerned. The Guayana region is already a food deficit area, and by 1975, more than 40 per cent of all food requirements may have to be imported from other regions of Venezuela. Should present experiments and projects prove successful, however, the share of food requirements produced in the region may be greatly increased. The Orinoco Delta area has promising agricultural possibilities.

Measures to Stimulate Private Investment

The Guayana Region Development Plan envisages a major role for private enterprise, both Venezuelan and foreign. To achieve this objective, the CVG has been granted authority to offer many types of assistance and incentives to private enterprise, including the following:

a. Prepared industrial sites, with urban services and facilities -- water, electric power, roads -- available in three industrial parks, as well as in other locations in the new city.

b. Assistance in the preparation of industrial projects, market studies, feasibility studies, and in the promotion and organization of new enterprises deemed essential for the Guayana region development program.

c. Help toward mobilizing investment capital and loan capital from private and public, domestic and foreign, sources, under the best possible terms, for industrial enterprises, housing, and other essential activities. (Where private enterprise expresses a need and desire for CVG participation in a joint venture, this can be given serious consideration, though the CVG prefers that private enterprise take the full initiative.)

d. Education and worker training programs on a number of fronts -- elementary, secondary and technical training schools, a special training program in the Orinoco Steel Plant, and a projected technology institute; assistance in creating specialized worker

training programs that may be required for any essential new industrial activity.

e. Recommendations to the Development Ministry and other ministries concerned for the granting of tax benefits, including customs duties exemptions for imports of equipment and materials not available domestically.

f. Opportunities for locating in a modern city in process of being built, with modern urban transport; warehousing, distribution and port facilities; and urban services of water and electric power at reasonable rates.

From the many projects, actual and projected, three case studies have been chosen to illustrate some of the ways in which private participation in the development of the Guayana region is being fostered.

1. Alfareria Caroni S.A.: An example of the type of assistance available to new industrial enterprises.

Assistance with site and plant. CVG helped this company, which proposes to make bricks in the Guayana area, to find a suitable site in an industrial subdivision. It then assisted the firm in making arrangements with the Corporación Venezolana de Fomento (a government corporation whose purpose is to stimulate industrial development by making investment loans to private firms and by other measures). As part of a general program for such assistance, the Corporación Venezolana de Fomento agreed to buy the chosen site from CVG, to construct the required facilities, and to lease the completed plant to Alfareria Caroni S.A., with an option to buy.

Market study. CVG's Division of Studies, Planning and Research developed data on the present and projected size and characteristics of the local market area, and on construction prospects, and made these available to the firm.

Purchase of common stock. Finally, CVG helped Alfareria Caroni S.A. to obtain 30% equity participation by the Creole Investment Fund, a subsidiary company of the Creole Petroleum Company of Venezuela.

2. Aluminio Del Caroni S.A.: Example of a joint venture.

The project. Taking advantage of low cost power from the Macagua Plant and even lower cost power to become available from the Guri Dam, and using a new electrolytic process that makes aluminum directly from bauxite, this new company hopes to begin production in 1966 with an initial capacity of 25 million pounds of primary metal a year. The company is a joint venture, equally owned by CVG and Reynolds International Inc.

Financing. It is anticipated that forty per cent of the capital requirements of $12 million for the first stage of the plant will be provided by the two equity shareholders. Loans for the remaining 60% will be sought from the U.S. Export-Import Bank and the U.S. Agency for International Development.

Incentives and guarantees. These include a guarantee by CVG of loans obtained from the United States; import duty exemption for machinery and raw materials not domestically available; income tax exemption for the interest on foreign loans; tariff protection for aluminum; special power rates; and the right of Reynolds International Inc. to meet the lowest bid for the supply of bauxite to the plant.

3. Guayana Electrometals: Example of a joint venture to undertake feasibility studies for an electro-chemical-metal complex.

As noted earlier, Guayana is a promising location for electro-chemical and electro-metallurgical industries, geared mainly to the competitive export market, but supplying also the needs of the heavy industry complex itself. Preliminary studies have already been made for a plant to produce elemental phosphorus, for which prospects seem particularly good.

The joint venture. With this background, CVG and the International Oil and Fertilizer Corporation, an enterprise engaged largely in international trade in and production of electro-chemicals and electro-metals, have entered into a joint venture. Each is providing half of the equity participation to finance three feasibility studies on the production and sale, principally for export, of elemental phosphorus and derivatives, liquid ammonia, and ferro-alloys. These studies are to be undertaken in the next eighteen months. The agreement provides for the formation of joint ventures to carry out the projects, if the feasibility studies are favorable.

Incentives. CVG has offered the future company electric power at the low rate granted previously to large-scale consumers having a high load factor. CVG will also provide a satisfactory industrial site in the new city.

Lessons from Guayana Development Planning Experience

It is clear that the Guayana region has certain advantages which may not be present in other less developed countries. Two are of particular importance -- the rich endowment of natural resources, and the substantial sums of development capital available in consequence of Venezuela's income from petroleum and iron ore production. However, though these factors have loomed large in Guayana's development, they are by no means solely responsible for the successful progress to date.

Indeed, in the absence of certain other factors -- which are readily available to any less developed country -- Guayana's unusual advantages might not have been effectively used.

There are five aspects of Guayana's development planning experience which have played a major role in the progress achieved so far and which are relevant to the capabilities and limitations of other less developed countries interested in regional development planning.

The first factor is the care taken to insure that Guayana's regional development planning was consistent with and integrated into the national development plan for the country as a whole. The regional plan is designed both to contribute substantially to the national economy as well as to meet the growing needs of a rapidly increasing local population, and the National Plan for Venezuela includes the regional plan for Guayana as a major component.

Second, the regional development plan is a comprehensive one, covering not only investments in infrastructure and industrial plant and equipment but also in agriculture, urban development, and the social, educational and cultural needs of the population. These different facets of the region's development have been studied in terms of their interactions upon one another to provide for future balanced growth and to eliminate imbalances that have already occurred. An example of the latter is the fact that, while a comprehensive urban design was being prepared for Santo Tomé de Guayana, the new city was growing rapidly without adequate housing or control. The new Master Plan, soon to be promulgated, aims to meet the needs of the city's expanding industries and population. Though resources may not be adequate for some time to eliminate the squatters' ranchos, the city will now increasingly be built in accordance with the new Master Plan.

Third, the sectoral programs and individual investment projects, which have been aggregated into the overall planning targets, have been based upon careful, detailed studies of resource availabilities, of market prospects at home and abroad, and of the requirements for manpower, skills and other factors of production. The foregoing description of the CVG's activities shows that a great deal of effort goes into market, technological and feasibility studies before decisions are made to commit public and private funds to specific investment projects. The need for these studies has been emphasized by the prospective role which Venezuela's trade could play in the future development of LAFTA. However, the difficulty of making long-range market studies must be stressed in view of the many uncertainties involved in estimating the future development of the Latin American integration movement.

Fourth, the projects themselves have been carefully prepared, both in their engineering and in their economic aspects. For these purposes,

the CVG has relied not only on its comparatively small technical staff of less than 100 people, but also upon the use of private engineering and management consultant firms. In addition, the CVG has found that the presentation of project proposals to international lending agencies for critical review has resulted in use of a more exacting set of standards in preparing the projects, and in enhancing the knowledge and skills of CVG staff members participating in this work. Particular attention has been paid in project preparation to the choice of technology, for the guiding principle has been that an industrial enterprise must adopt the most efficient techniques if it is to be competitive, particularly in international markets. This has sometimes required the adoption of processes still in an experimental stage; the considerable risk involved is believed to be justified. In the Guayana region, such experimental processes have been adopted or are being considered in three important projects -- the reduction of iron ore, the production of sponge iron, and the direct reduction of aluminum. In each case, the advanced imported technology has had or will have to be adapted to the particular capabilities and limitations of Guayana's unique resource endowment, necessitating considerable technological research and experimentation. These examples indicate the importance of establishing domestic technological research capabilities for enabling a less developed country to devise processes especially attuned to its resource base and industrial requirements.

Fifth, effective measures have been adopted for stimulating the participation of private capital, Venezuelan and foreign. The joint venture device has been used with great effectiveness as a means of obtaining both additional investment and, perhaps more important, foreign technical and managerial knowledge and skills. Venezuela could have developed the required know-how only with long delay and great cost. But, by making extensive use of foreign engineering and management consultant firms and of the joint venture device, the most up-to-date technology has been imported with relative ease and rapidity.

REGIONAL PLANNING AND NATIONAL DEVELOPMENT

Neil McInnes

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These are excerpts from the original articles.

It has often been debated whether the problems of national development, as they confront a whole country, like India, are analogous to those of regional development, as known in backward areas within, or on the immediate fringes of, the advanced Western World. No doubt, one would hesitate to carry too far a parallel between the economic situations and prospects of India, on the one hand, and, those of Scotland, Brittany or Auvergne, on the other. Yet that is less because the two sets of circumstances are proven to be qualitatively different than because all the magnitudes are so grotesquely disproportionate; the Scots, Bretons and Auvergnats are poorly off by British and French standards but they are not sunk in the miserable existence accepted by millions in India. One would, for that very reason, have much less hesitation in drawing an analogy between conditions in the less developed countries and those of South Italy, for these latter are in absolute terms worse than in several parts of the underdeveloped world.

There exists a vague feeling that development problems cannot be as grave, or as recalcitrant to treatment, when they occur right next-door to prosperous industrial centres. Yet that feeling betrays a quite incomplete theory of the causes of underdevelopment.

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Mere scarcity of natural resources is nó more important among the causes of underdevelopment than the disequilibrium introduced into an economy by its relations with a vastly more advanced industrial economy -- and that disequilibrium can be more marked on regions nearer centres of prosperity than on regions further removed. What happens in the backward economy that is drawn into the orbit of an external industrial power is that the original balance of its socio-economic structure is broken, and the first attempts at development take place along two parallel lines that never meet. On the one hand, there is an export sector draining off raw materials to be processed abroad, and, on the other hand, there is an import sector supplying the region with goods from abroad. These two sectors make up the "modern" part of the economy, in evident contrast to the rest which remains archaic. But, that modern part is quite fragile and provides no basis for economic development because there is no link between trade in raw materials and trade in finished products, i.e., no local industry. As this situation hardens, the establishment of a local industry becomes more difficult, for the economy is not simply underdeveloped but distorted. Now, this can happen in regions right alongside major industrial areas as well as in regions far removed, provided there is some fissure in the social structure that prevents stimulating influences from spreading from one part of the country to the other. South Italy, Brittany and Auvergne suffered more from their proximity to nodes of industrial expansion than from their poverty in material and human resources.

Still, it will be replied, the fact that such regions fall within the same political unit as the centres of industrial expansion must make development much easier. It is sufficient answer to point out that South Italy has been within the Italian state from its foundation, and yet its economic conditions have gone on deteriorating as fast as those of, say, Afghanistan in the same period. It is true, of course, that, once the nation decides to attack regional underdevelopment, it has at hand means that are not available when the question is international. Rome can pass a law directing that a part of Milanese capital must be invested in Naples and it can collect taxes in Turin to transfer to Sicily; but there is no authority to channel American or European money to India.

However, two observations must be made about this. Firstly, Rome did not think to do this until the question of national development had become a global issue: the need to develop South Italy was seen at the same time as the need to promote development in Asia and Africa, and for identical reasons in each case. There was, in fact, more opposition from politicians and economic interests to transferring North Italian resources to the south than to transferring French resources to Africa. Secondly, the resources thus marshalled have to be put to work within the framework of a development plan for it is never just a matter of pouring money into a backward area, be it a whole nation or a region.

The apparent ease with which a nation can gather funds for regional uplift does not alter the fact that these funds are sterile without a plan, which is exactly the same sort of plan as has to be devised to promote national development.

Even if, in the face of these arguments, we continue to hold that national development is intrinsically different from regional development, we have to face another serious objection. It is this: can a national plan work in a country the size of India, without being broken up into regional plans? Relatively small countries, small both as to area and population, of the order of Morocco or Ceylon, might be able to implement unitary national plans, but by the time we are dealing with medium-sized countries, like France, we see an irresistible pressure to break down the global totals into regional programmes. The reasons are numerous: provinces differ ethnically and socially; resources are unevenly distributed by nature and progress has been unevenly distributed by history; global or national objectives are too remote, too abstract, whereas regional programmes are more easily understood and thus attract more enthusiastic cooperation. All of these considerations apply with a hundred times the force to a nation of the proportions, and the variety, of India. There is no question of abandoning planning at the national level, for, without a national framework, regional plans would become anarchic. It is a question of passing as quickly as possible from conception at the national level to implementation at the regional level. To the extent that we do so, we re-discover just those problems of regional development that some people regard as radically different in nature from national development. South Italy, then, might not be comparable with India, but, when Delhi tries to see how the progress of the Punjab fits into the national plan, it finds itself confronting problems not so different from those Rome is dealing with in the poor South.

Relations Between National and Regional Planning

This is only half the story. Supposing that a government persists in scattering steel mills, oil refineries and community development projects around the country in the name of a "national" approach (in reality, in response to random political pressures and provincialist jealousies), it will still be led, by considerations of mere efficacy, to recognise the problem of nodes of development. For, it is a fact that none of these ventures will give good returns, if they are isolated from each other, instead of being located in the same general region. The country as a whole will get less benefit out of a steel mill in one locality, an oil refinery in a second locality, and a community development scheme in a third, all distant from each other, than out of those three enterprises undertaken in close proximity.

The multiplicity of stimulants to development -- industrial, social, educational, agricultural -- have to be applied, it is recognised, at the same time; hence the complexity of the development problem. It is less commonly realised that they have to be applied in the same place, when we are dealing with an economy that is not yet structured, integrated and coherent, as the underdeveloped economy is not. Heavy industry projects, agricultural experts, aid to small industries, loans to family businesses and the like all have less effect when they are distributed haphazardly around the country than when they are given a precise geographical specification. Their success will depend less on their cost and scope than on the precision of their impact on the terrain. This is where we are forced back to the study of regional development plans such as are being implemented in South Italy, because there the intention is consciously to weave a tissue of social and economic support around the skeleton of big industrial projects or multi-purpose agricultural schemes. It is not enough even to ensure that an industrial investment is connected upstream and downstream with the industries that will supply its requirements and transform its products (though this elementary fact is often overlooked in national planning); it is also necessary to prepare all around it the social and agronomical and psychological context in which it can flourish and reverberate. In other words, successful planning is inevitably regional.

It is not being suggested that every instance of regional planning must be focused on only one region. Nevertheless, some regional inequalities, deliberately caused, and accepted as temporary disadvantages, will probably have to be faced if national development is to prosper. We are not urging the paradox that regional development should be undertaken at the cost of creating exactly the sort of imbalance that regional plans in Europe and America are devised to remedy. Various widely separated regions might benefit from the regional approach that is suggested, but, in each case, the attitude will be just what it is in regional planning as undertaken within advanced economies: namely, "we are seeking to get going at the same time and in the same place a number of interdependent activities, concentrated here and now rather than scattered around the whole country." Regional planning in the West accepts this geographical concentration of effort, because it does not have to worry about the rest of the country, which, by definition, is more advanced. Regional planning in less developed countries would have to accept it, because it should be recognised that development takes place in nodes, and love, labour and money are wasted if cast too wide. The motives might be different, but practice comes down to the same thing: national development cannot escape the regional approach and thus has much to learn from regional planning in the advanced economies.

Regional Planning in South Italy

An instructive example is in South Italy, firstly because the extent of underdevelopment there as recently as 1950 was literally comparable with conditions in numerous less developed countries; secondly, because, after long and apparently hopeless effort, the tide has at last been turned and in the last two years the region has begun to progress faster.

The story of this achievement began in 1950, with the agrarian reform in the south and the foundation of the [Cassa per il Mezzogiorno] "Fund for Extraordinary Public Works in South Italy." Various other specialised organisations were created in the next few years, some devoted to particular geographical sectors such as the islands of Sicily and Sardinia, others to special tasks such as finance, industry and agriculture. All of these worked as the transmission belts of the directing fund, which based itself on the theory that development called for works which, because of their cost and duration, transcended normal budgetary rules and the competence of the normal administrative machinery. For a population of just under 20 million, the sums [initially] to be invested over [the first] 10 years were about Rs. 800 crores [US$1.6 billion]. Of these, no less than 77 per cent were devoted to agriculture. The rest went to the infrastructure: 11.5 per cent for aqueducts and drainage, 9 per cent for roadworks, and a small balance (2.5 per cent) to tourism. The Italian planners knew as well as any of the pundits who harp on it in season and out that, ultimately, it is only the establishment of industry that can cure under-development, "over-population," ignorance and squalor. But they also knew, what the industry-first pundits forget to tell us, that industry cannot exist in a vacuum, and that an agricultural renascence has to come first, not because we are especially attached to agriculture but because a revolution on the land represents the phase of pre-industrialisation. Without a rise in agricultural productivity (in turn closely connected with agrarian reform) and the building of a material infrastructure, no development would have been possible.

Not that it was necessary to wait until this revitalisation of farming was complete before thinking of industry. Once it was under way, and provided the emphasis continued to rest firmly on that sector, industrial projects could be taken up. Right from 1952, loans were raised for public industrial ventures in the south and in the following year regional medium-term credit institutes were set up. Yet, it should be noted that these first -- and after all modest -- industrial efforts were concentrated in places where some industries already existed (Campania, Sicily, Sardinia). It was not until 1957, when the agricultural revival and public works had produced a notable increase in revenues, that the plan was revised and industrialisation became the prime objective. Agriculture continued to receive much attention, and, if

public funds for that purpose decreased relatively, it was only because the success of earlier efforts was producing private savings among the peasants for further investments on the farms. Action on the infrastructure was at that point intensified: roads, housing, aqueducts, irrigation, electricity, railways and the like now got more money than ever, because it was seen that any industrialisation that was pressed at the expense of such facilities would be insecure.

Mistakes Admitted and Rectified

With these reservations, industrialisation was henceforth the major aim. The Italians began by making a serious error, of a sort familiar in all developing countries. With the slogan "A [factory] chimney for every [church] steeple," they pursued the utopia of industries scattered more or less uniformly throughout the countryside; this vision of "social utility" was placed before the criterion of economic efficacy. The facts soon showed the futility of this proceeding and the Italians admitted their error, adopting the system of industrial nodes. They learned, that is, that no industrial project gives the return one hopes for in terms of development, unless it is situated just where it finds suitable and pre-existing industrial structures, an infrastructure, public services, labour, food supplies and a market -- not just one or several of these things but all of them together.

Applying this lesson, they wrote into their plan the two concepts of "industrial development zones" and "industrialisation nodes." The former, the zones, are areas of considerable concentration in which exist numerous industrial enterprises that need each other and all need a suitable social environment. The latter, the nodes, are smaller areas constituted by the proximity of one or two big industrial projects that are situated there for a precise reason, such as the local availability of a raw material or a special facility like a port or power house. An industrial development zone must cover several communes (villages) and must have a population of at least 200,000 people. The terrain must be suitable for industrial extension, with flat, solid ground; the region must possess the essential infrastructure and notably energy supplies; in short, it must have everything that promises the growth of a modern industrial city. Choice of the "industrialisation nodes" is more strict, for it is realised that their power of attraction is much less, both for other industries and for workers and traders. A node, therefore, is not approved until several major enterprises agree on the one spot and submit projects that justify this location and are judged financially, economically and technically sound.

Industrial Zones and Nodes

What is the force of the expressions "a zone must have..." or "a node must be..."? Simply this, that the government will not found public projects in areas not meeting those requirements; it will not

encourage private and foreign industry to go there. It will concentrate the building of roads, schools and other amenities in areas answering its descriptions; and it will encourage and subsidise private groups that seek to form a zone or node. Any entrepreneur is free to ignore this regionalisation if he chooses, but at his own risk. A zone or node can be formed by consortiums of private firms, chambers of commerce and provincial authorities. Theoretically, any one of these could take the initiative, but, in practice, they all collaborate. The consortium formed with a view to creating a zone or node must undertake the following work:

- It must draw up a general plan of the industrial concentration it has in mind.
- It must undertake, improve and administer local works such as railway sidings, road branches, water and power supplies, elimination of industrial wastes, etc.
- It can buy land and then re-sell it, or rent it out for the installation of new industries.
- It must meet certain criteria in building factories in the zone.
- Finally, it promotes any project it judges apt to develop its region.

When a local consortium of this sort has been formed, it submits its plans and its statutes to the central planning authorities for their approval. The consortium established, it is authorised to contract loans from the various credit institutes, and benefits directly from the subsidies dispensed by the planning fund. Moreover, it is then in a position to attract private enterprise from outside the region, for it can offer industrialists the facilities of an existing infrastructure and a receptive economic climate.

So far in South Italy, 13 zones and 30 nodes have been officially recognised. They are concentrated in widely separated regions, around Naples, Bari, Brindisi, Syracuse and Palermo. No province can say that it is neglected but none monopolises all the industrialisation ventures. The areas in between these poles of development (and of course such areas make up, geographically, most of the countryside) are within the radius of reverberation of the centres of industry, supposing these fulfill their promise. That they are within calling distance, so to speak, of the development poles is assured by the previous construction of modern roads, for it is realised that the hoped-for multiplier effect of industry cannot operate across open country in the absence of communications.

Having played a major role in setting up the development poles, the planning authorities now see their task as consisting in putting private industry, whether Italian or foreign, in contact with these organisms. The government offers all the concessions imagined elsewhere to attract industry (tax exemptions, loans on special terms, etc.) but it goes further and seeks to link every parcel of incoming financial or technical aid with the zone or node that best suits it. It is not a question of arbitrary direction, for obviously the outside entrepreneur is only too willing to be introduced to the localities that promise the most profitable climate for his undertaking. This is the function of the recently formed Institute for Development Assistance, which not only channels capital toward specific zones but sees to it that the new enterprise has access to the relevant credit organisms, finds the labour it needs and even, in case of need, hunts out the possible suppliers of raw materials and parts. It goes without saying that state-owned ventures similarly move toward the zones and nodes of industrialisation. Such ventures, incidentally, continue to be important but the role of private enterprise is growing rapidly, for the government properly considers that, while the initiating role fell largely on the public sector, in the second phase it will be overshadowed by private capital.

Lessons for Development Planning

In following this regional concept of industrial development, the Italian planners are applying the clearest lesson of development work everywhere. It has been demonstrated repeatedly that industrialisation is sterile if it means the isolated establishment of prestige projects or great schemes that do not fit into the national economy. The most impressive plant, remarkable from the technical point of view, can give disappointing results from the development point of view if it is isolated, not simply economically isolated (remote from materials, markets, complementary activities and communications) but socially isolated (set in a community unprepared to benefit from it).

This statement needs elaboration if its full force is to be grasped, for some will conclude that such isolated enterprises are business failures, that they prove to be uneconomic. Not at all. We are not referring to the evident fact that an isolated venture will find that its economic and social overheads are so high that it cannot make a profit. We mean rather that an industrial venture can be a business success and still be a development failure -- if it is integrated with remote markets instead of with its own environment.

The case has been illustrated more than once in considerable hydroelectric undertakings in backward parts of Europe, in the Alps or Pyrenees, for example. During the period the works are in progress, they exercise a transient stimulating effect locally, which disappears once the structure is in place. This stimulating effect can be limited

to the mere appearance of a pocket of inflation: geographical price discrepancies emerge, a few parasitical activities are called up briefly, but the locality has not been able to meet the increase in demand caused by local prosperity. Once the work is finished -- and it may be, by the strictest accountancy standards, a fully economic project -- the new undertaking's relations are all with distant centres; the local region sinks back into its lethargy. The national income has increased by a fraction, but a backward and under-privileged population has not undergone the transformation of its way of life that we call development. For that, it would have been necessary to give local people the training they needed to help build the installation and then ensure that this training could be used in complementary activities in the same region thereafter; to ensure that the temporary increase in local demand was met by revitalised local activities that remained viable afterwards; and to see that the big project was deliberately used to attract around it other industries, which would benefit, for instance, from locally cheaper power. If those other industries were of comparable size to the initial undertaking, one would have what the Italians call an industrialisation node; if they were a collection of smaller affairs, what they call an industrial development zone.

SOME RECENT PUBLICATIONS
ON REGIONAL DEVELOPMENT

John Meyer, "Regional Economics: A Survey," The American Economic Review; the American Economic Association, Northwestern University, Evanston, Illinois, Volume LIII, Number 1, Part 1, March 1963, US$2.00, pp. 19-54.

Professor John Meyer of Harvard University surveys in this long article the development of a new specialized field in economics -- the analysis of the structure, internal and external relationships, and dynamics of the economies of regions within countries. He covers definitional problems; choice of regional economic policies; theoretical foundations of regional analysis; and types of regional studies. Progress in each of these aspects of regional analysis is illustrated by reference to 130 books, monographs and articles, which constitute in effect a selected bibliography at the end of Professor Meyer's survey. However, most of these references deal with development of regional analysis in the United States and Western Europe.

B. C. Robertson, Regional Development in the European Economic Community; London, Political and Economic Planning and George Allen and Unwin, Ltd., 1962, 95 pp.

This monograph explains in nontechnical terms the policies and programs for regional development in the countries comprising the European Economic Community. Separate chapters deal with regional programs in France and Italy, and a concluding chapter discusses the relationships between economic integration and regional development.

Walter Isard and John H. Cumberland, editors,
Regional Economic Planning, Techniques of Analysis;
European Productivity Agency of the Organization for
European Economic Cooperation, Paris, 1961, 450 pp., US$6.00.

This publication contains the papers and proceedings of an OEEC (predecessor of the Organization for Economic Cooperation and Development -- OECD) conference held in Bellagio, Italy, in 1960 on techniques of analysis for regional economic development planning. Parts I and II present material on the history and present status of national and regional economic planning in Greece, Italy, Puerto Rico, Spain, Turkey, and Yugoslavia. Part III examines structural problems common to all regions in the process of development, including industrialization, urbanization and legal aspects. Part IV examines techniques currently in use including regional planning, social accounts analysis, input-output methods, benefit-cost analysis, and other recent methodological developments, and discusses their advantages and disadvantages. Part V presents a summary of the discusssions at the conference and attempts to integrate the separate analytic techniques into a comprehensive framework which can be generally applied in a wide range of regions in the process of economic development. A number of the papers presented are highly technical and would be of use primarily to specialists. Others are of more general interest.

MODERNIZING THE THEORY OF INTERNATIONAL TRADE AND DEVELOPMENT

Gerald M. Meier

[From International Trade and Development;
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[One obstacle to more satisfactory progress in expanding international trade has been a conceptual problem arising from the obsolescence of the traditional theory of international trade. In this new book, Professor Gerald M. Meier has made an important contribution to modernizing the classical theory and making it relevant to contemporary facts and problems. Professor Meier's own summary of the analysis covered in his book and of his main policy conclusions are contained in the excerpts reprinted here. In addition to covering the subjects mentioned in these excerpts Professor Meier's book also contains excellent bibliographical notes on the main aspects of contemporary international trade theory as it affects the needs and problems of the less developed countries.]

These are excerpts from the book.

The classical theory of international trade has shown a remarkable capacity to absorb modifications as required by advances in general economic theory and by the exigencies of public policy issues. Yet, in spite of its substantial evolution from Hume and Ricardo

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through Marshall, Edgeworth, and Taussig, to Viner and Haberler, the traditional theory still remains an analysis of full static equilibrium with respect to domestic market assumptions, and is concerned most directly with rich advanced economies. In contrast, general economic theory has sought increasingly to incorporate long-period dynamic analysis, and the most pressing international economic problems now involve the acceleration of development in poor countries.

Followers of the classical tradition have long been uneasy about Professor J. H. Williams' criticism that 'the relation of international trade to the development of new resources and productive forces is a more significant part of the explanation of the present status of nations, of incomes, prices, well-being, than is the cross-section value analysis of the classical economists, with its assumption of given quanta of productive factors, already existent and employed.' It is true that Gunnar Myrdal takes an extreme position in his condemnation of the 'strange isolation of the theory of international trade from the facts of economic life,' but economists are still generally desirous that trade theory should have more to say about developmental problems. Many would subscribe to Professor Ragnar Nurkse's more moderate statement: 'The case for international specialization is firmly based on considerations of economic efficiency. The world is not rich enough to be able to despise efficiency. The optimum pattern of specialization is governed by the principle of comparative advantage. This principle remains as valid today as it was in Ricado's time. And yet there is some question whether it alone can give all the guidance needed by countries whose dominant and deliberate aim is economic development....If one asks what help it offers here and now to low-income countries in search of development, the answer is not altogether clear.'

These criticisms, together with the widespread interest in development problems at both the theoretical and policy levels, make it apparent that classical theory needs amendment and extension. Although the classicists were attentive to the long-run growth of the domestic economy, they were content to analyze the international economy in essentially static terms. Classical and neoclassical writers did not completely ignore the developmental effects of international trade, but their allusions to developmental topics were quite subsidiary. Their statements on international development have been considered as merely in the nature of <u>obiter dicta</u> alongside what has become accepted as the main corpus of traditional trade theory.

For an examination of the poor countries in the international economy, traditional trade theory need not be completely supplanted; but it must be supplemented in a broader frame of reference and removed from the confines of full static equilibrium, as in classical analysis, and from the short period of the cycle, as in Keynesian analysis. It needs to pose a different set of questions. This study presents such an extension.

Outline of the Analysis

Our starting point is the simple recognition that at any given time the international economy will be composed of countries which have attained different levels of development as measured by per capita real income. Over a period of time the several countries will also experience differential rates of advance. Moreover, each country's pattern of internal development may vary, in accordance with particular leading and lagging sectors and different interconnections between the sectors.

Once these differences in the level, rate, and pattern of development are recognized, we must transform many of the "constants" in classical trade theory into variables. In the context of development, we can no longer assume that the supply of resources remains fixed, that tastes are constant, technical knowledge given, and imports equal to exports with no international capital movements. Such restrictive conditions preclude an analysis of the long-run evolution of international trade and ignore the very essence of the development process. If we are to analyze relationships between international trade and development, we must consider the effects of continual increases in productive factors, the evolution of demand conditions, technical progress, and international capital movements. These changes affect international trade, and international trade, in turn, influences the development process. The international economics of development is concerned with these reciprocal relationships.

Such relationships have some relevance for every developing country, whether rich or poor, but they apply with particular force to poor countries. Although there have been studies of the effects of international trade on the maintenance of growth in rich countries, and of the impact of overseas development on the trade of industrial countries, there has been relatively little systematic consideration of the more urgent problem of the effects of trade on the acceleration of development in poor countries. In striving for simplicity, most of the theories of development have sacrificed relevance by abstracting from the international setting in which the national development of poor countries must occur.

The economy of a poor country can be characterized as being an "export economy" or a "dependent economy." These terms may be somewhat arbitrary, and the latter is needlessly emotive, but most of the poor countries do have a strong orientation towards foreign trade. This orientation appears in many ways: a high ratio of export production to total output in the cash sector of the economy, a concentrated structure of export production, a high marginal propensity to import, the inflow of long-term capital, the presence of foreign-owned enterprises, and even in the large share of government revenue derived from customs receipts. It is also an historical feature of the intersectoral pattern

of production that export production has normally displayed the most rapid expansion and that the level of exports has tended to have more influence on aggregate demand than has private investment or government expenditure. The weight of exports in relation to total activity is especially great for the poor or the smaller nations. And even though the ratio of foreign trade to national income is usually low in a predominantly subsistence economy before the pace of development accelerates, the ratio rises rapidly with development as foreign trade tends to grow faster than income in the early stages of development. On both quantitative and qualitative grounds, it is therefore especially important to examine the development of poor countries in the context of their external environment.

In doing this, we may focus on four basic problems:

a. If we determine how the structure of comparative advantage changes over time, we can then ask how the volume and composition of trade and the gains from trade undergo change. Traditional trade theory does not provide an immediate answer to this, insofar as it is restricted to the narrower questions of what commodities would be traded and what would be the gains from trade at a given moment. To extend this analysis to a developing economy we must consider how changes in factor supplies, technical progress, increasing productivity, and changes in demand can transform the structure of comparative costs. We examine these developmental aspects of the pure theory of trade in Chapter 2, which introduces long period changes into the theory of comparative costs, and in Chapter 3, which investigates the long period determinants of the terms of trade.

b. In considering the monetary theory of trade, we should relate the problem of maintaining balance-of-payments equilibrium to the developmental problem of capital accumulation. Chapter 4 does this by analyzing the possible sources of conflict between the objectives of accelerating capital formation and preserving external balance.

c. It is also essential to relate international investment to the development process. The traditional theory of international capital movements focuses on the transfer problem and the mechanism of adjustment in the balance of payments. But the transfer of productive capital and its interconnection with the forces of development receive only slight attention. Chapter 5 attempts to remedy this deficiency by examining some developmental aspects of the international movement of capital.

d. Finally, we should seek an answer to the overriding question of whether there is a conflict between the gains from trade and the gains from growth -- whether the process of development is facilitated or handicapped through international trade. To what extent can the

foreign sector transmit developmental forces to a poor country? Is free trade the optimal trade policy for stimulating development, or can development be more readily accelerated by the use of restrictive commercial policy? Should poor countries concentrate on export stimulation or import replacement? In what ways can the process of growth-transmission through foreign trade be accelerated? Chapter 6 and 7 discuss such questions.

Policy Conclusions

Mindful of the potential contribution that foreign trade can make to development, we have concluded that the basic international trade problem for a poor country is not so much how to control its trade, but rather how to achieve a more extensive carry-over from its export trade to its domestic economy. Many of the policy implications of the foregoing analysis thus center upon a reduction in the market imperfections. To accomplish this, alternative forms of economic and social organization are required. If the export sector is to be able to propel the rest of the economy forwards, domestic policies must concentrate on diminishing the prevalence of semi-monopolistic and monopolistic practices, removing restraints on land tenure and land use, widening the capital market, and making credit and marketing facilities more readily available. The economy must also be made more flexible through investment in transportation, communication, education, and manpower training. If the market imperfections are reduced, the development process may then be more readily established on an indigenous base within the society of the poor country.

If market imperfections are eliminated, and the internal economic structure becomes more flexible, the penetrative power of foreign trade can be greater. Modern production techniques can be diffused more widely. New skills can be created and transferred to domestic enterprises. Entrepreneurial activities can also be expanded, since entrepreneurship depends not only on individual abilities and motivations but also on a congenial environment for the individual. And investment can be greater, with a higher rate of plough-back of foreign exchange proceeds into the investment opportunities created by foreign trade. Insofar as this investment is directed to industries related to exports, either in servicing exports or using an import material as an input for home industry, the investment can be more productive than the short-run speculative type of investment that has been only too prevalent.

Against this emphasis on the removal of domestic obstacles as a means of increasing the stimulating effect of exports, it may be argued that while this is an appropriate consideration when the stimulus from exports is strong, it is not relevant when exports do not provide much of a stimulus in the first place. Granted that domestic obstacles may

have accounted for the weak carry-over of exports in the past when export markets were expanding, there remains a possibility that now exports may no longer enjoy a strongly rising world demand and may not be a sufficient basis for development. If exports cannot be relied upon to grow sufficiently, then foreign trade will be a weak transmitter of development even if the domestic obstacles are removed. It might be claimed that comparative costs should not be relied upon as an allocative mechanism -- that the dictates of comparative advantage may lead only to comparative stagnation if the country's exports face an external demand which has low elasticity with respect to price and income, and the total volume of exports increases at only a slow rate. In this situation, however, it becomes all the more necessary to strengthen the country's export position and follow policies that make the domestic economy as flexible as it can be in order that the response to even a weak external stimulus may be as extensive as possible.

Even if the price elasticity of demand for a primary product export is generally low, it may be high from a single source of supply. If the prices of substitute products rise relatively to the price of the primary product export, the volume of exports may also increase. It is therefore necessary for the poor country to improve its competitive position in export markets and its cost advantage over substitutes by increasing productivity and restraining internal demand. Since it is highly improbable that all primary products should face unfavorable growth prospects, poor countries must also pursue policies ensuring that they are specializing as much as they can in exports with the highest growth prospects. This requires, in turn, a capacity to reallocate resources. To shift, for example, from the production of a foodstuff export, which faces only a slowly growing demand, to an industrial raw material or a mineral export, which has a more rapidly expanding demand, will entail structural changes and greater mobility of resources.

At the same time, the removal of tariffs and quotas on imports of primary products into industrialized countries would also improve the export prospects of poor countries. So would the avoidance of artificial support of synthetic substitute products. Above all, higher rates of growth in advanced countries will also strengthen export possibilities.

Inasmuch as the short-term fluctuations in export proceeds also affect development, policy measures should be designed to mitigate the volatile movements, especially the substantial falls, in export earnings. Of prime importance is the maintenance of import demand through high and stable levels of employment in industrial countries. But, in addition, national and international action might be taken to achieve greater short-run stability in international commodity markets. Various stabilization techniques are possible: buffer pools, quota systems, long-term contracts, coordinated national stockpiling schemes, and statutory marketing boards. Instead of dealing with individual commodities

and attempting to stabilize their prices, an alternative approach is through some form of counter-cyclical lending. Commodity prices may be left free to fluctuate, so as to avoid interference with long-run adjustments in production, but the domestic impact of falling prices may be offset by having producer countries receive compensatory financial assistance in the form of loans or grants from the surplus consumer countries or international institutions. Through more effective monetary and fiscal measures, the government of the poor country may also restrain inflation and accumulate exchange reserves during the period of rising export proceeds, and then draw on the accumulated reserves during a downswing to maintain imports essential for development.

Beyond the benefits from improvements in the position of their traditional primary exports, the poor countries may be able to take advantage of new export opportunities for manufactured goods. The exportation of cheap labor-intensive manufactured commodities may provide an increasingly important opportunity for transmitting development to some poor countries which have the necessary resources and can gain a comparative advantage by utilizing labor-intensive methods. It may be only through production for export that a poor country can overcome the small size of its home market and become efficient in industries that need a wide market in order to realize economies of scale. It is unlikely, however, that capital goods or the products of heavy industry can be successfully exported because they require considerable capital and large-scale methods. It is also difficult for a poor country to compete in the export market for manufactured consumer goods that have exacting requirements of style and quality, or in exports that may confront a protectionist barrier in advanced countries. Yet, there may be considerable opportunity to export consumer goods, particularly textiles and light manufactures, to other less developed countries. This is especially likely if they are members of some form of free trade area or customs union, as discussed in Chapter 6. There may also be substantial markets, in both the advanced and other developing countries, for the exports of some light manufactures, and for processed primary products from materials-oriented industries, which can advantageously locate at the source of the raw materials. In these situations, the export of manufactures may become a direct means of industrialization, in contrast with the export of primary staples, which provides only a basis for inducing industrialization through a gradual process of development.

Thus, in the future for currently poor countries, as in the past for other countries, foreign trade may operate as an engine of growth transmission -- provided there are latent indigenous forces of development that can be released through trade. The gains from trade can facilitate development, but they cannot be a substitute for the developmental forces that must necessarily be created within the domestic economy. And these forces cannot be viewed as comprising only the basic economic determinants of development, such as entrepreneurship,

technical progress, and capital accumulation. For these proximate determinants are, in turn, related to the indirect noneconomic, but nonetheless highly important, influences of the society's political, social, and institutional organization. The merging of the gains from trade with the gains from growth rests ultimately, therefore, on the efficacy of domestic policy measures in producing sufficient social and political change, as well as economic change, to make the economy more responsive to the stimulus from trade. If this is accomplished, the benefits of international specialization may then be secured -- not only for economic efficiency, but also for the urgent challenge of accelerating development.

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TRADE PROBLEMS OF ASIA AND LATIN AMERICA
WITH THE EUROPEAN ECONOMIC COMMUNITY

[During the past year increasing concern has been expressed by many less developed countries about their future trade relations with the European Economic Community (EEC). Two recent reports by the United Nations Regional Commissions for Asia and the Far East (ECAFE) and for Latin America (ECLA) discuss the nature of current and prospective trade difficulties between their respective regions and the EEC and the measures which might be taken to overcome them. The views expressed in the following two sets of excerpts are not necessarily accepted by the West European countries comprising the EEC.]

[From Economic Survey of Asia and the Far East 1962 (also issued as Economic Bulletin for Asia and the Far East, ECAFE, Bangkok, Vol. XIII, No. 4, March 1963); United Nations, New York, N.Y., 1963, US$3.00; pp. 53-55.]

These are excerpts from the reports.

While export trade is of critical importance to the economic development of less developed countries, its recent performance in the developing ECAFE region has been disquieting. Growth of exports of the region has lagged not only behind that of developed areas and other less developed areas, but even behind the growth of aggregate product of the region. The capacity to raise income and employment and to obtain capital goods from abroad is therefore being weakened. The lack of opportunities to export has led many countries of the region to plan a rather modest rate of export increase in their development programmes. Therefore, without availability of ample foreign exchange from other sources, the developing countries of the region can hardly be expected to achieve a rate of economic growth as satisfactory as that suggested for the United Nations Development Decade.

The export lag is deeply rooted in the structure of exports and production pattern of these countries. The region relies heavily on primary exports, particularly of raw materials, to the developed areas among which western Europe is the most important. Primary exports have been for a long time showing a stagnant, if not declining, trend, with wide fluctuations. In contrast to the rapid expansion of world trade, their recent performance has been especially disappointing. Raw material exports from the developing ECAFE region have risen much more slowly and those to the EEC area have actually declined. Apparently, even a high rate of growth in the developed countries may not guarantee a high rate of exports from the region, unless the region is enabled to export a large amount of those commodities for which the demand is sensitive to growth.

As though this situation were not gloomy enough, the region's exports are encountering some uncertainty or even adverse effects from the establishment of the European Common Market. A number of major exports, such as rubber, tea, petroleum, raw jute, raw cotton, tin concentrates, tin metal, spices, hides and skins, and wood seem to be presently unaffected by the alignment of national tariffs with the common external tariff, since they are either not produced or else produced in very small amounts in the EEC area, and at present subject to a negligible tariff. For tea, however, the internal fiscal charges in some EEC member countries are high. Rice, oilseeds and vegetable oils, and tobacco (some varieties of these commodities are also produced in the EEC area) may be adversely affected by the EEC common agricultural policy. For those primary exports which are not substantially affected either by the tariff alignment or internal fiscal charges on the one hand, or by the EEC common agricultural policy on the other, the prospects of demand from the EEC area are gloomy, except perhaps for rubber, petroleum and wood. Even rubber may have to sell at a lower price in order to compete with synthetic substitutes.

These circumstances -- the stagnant demand, the protectionist agricultural policy and the restrictive fiscal policy of the ECAFE region's major industrial buyers in the EEC -- have indicated decisively that export expansion along traditional lines is limited. If hitherto there were some comparative advantages for countries of the region in exporting these commodities, changes in the demand pattern arising from income growth and advances in production methods resulting from technological improvements in the importing countries have apparently more or less exhausted them.

In fact, all countries of the ECAFE region are aware of these unfavorable trends and, in connexion with their drive towards industrialization and economic development, many of them are exporting appreciably more manufactured goods than they did before the mid-fifties. Indeed, exports of manufactures from the developing ECAFE region have grown

surprisingly faster than those of primary products, particulary exports to the EEC area. Looking into the future, many countries are planning export diversification in the direction of new products, especially manufactured goods; but inertia in the form of continued concentration on traditional exports seems still to prevail in some countries. Basically, of course, great efforts have to be made to increase total output and exportable surplus which have to be promoted through the provision of incentives and marketing facilities, and restriction of home consumption. It is difficult to restrict home consumption since the rapidly growing population has to be fed and a part of the raw materials exported has to be diverted to domestic industrial use.

A question of immediate concern in some countries is perhaps whether the existing exchange rates are realistic or not. If the currency is over-valued, an export drive will be particularly difficult; the various incentive schemes may reduce this difficulty to some extent, but sometimes they tend to add complications to the already cumbersome exchange control system. More basic and long-run solutions are, of course, the increase in productivity and the fuller utilization of resources; but this is just another way of emphasizing the vital and urgent need for economic development. A practical beginning would be an assessement of the possibilities of developing new industries, not just for import-substitution but also for export. Such an assessment should, of course, be undertaken in the context of the over-all plan of developing human and natural resources and external market prospects. Moreoever, duplications among countries of the region should be avoided, and markets in the developed countries should particularly be studied.

The urgent need to increase manufactured exports for the developing countries of the region necessarily leads to the examination of obstacles which such exports are encountering in the developed countries from which those countries have to buy the capital goods. Here, unfortunately, restrictions practised by the developed countries are much more severe than those on raw materials.

Western European countries, although very much advanced, still maintain a structure of tariffs designed to raise the level of protection as primary materials are carried forward into successive phases of processing. The common external tariff of EEC has the same feature, and the average tariff rate of manufactured consumer goods is the highest among all commodity groups. Exports of manufactures from the developing ECAFE region to western Europe (especially to the EEC area) rose rapidly during the second half of the 1950's and in 1960 they represented one-fifth of the region's manufactured exports. Most of such exports fall in the group of non-investment manufactures. The price elasticity of demand for imports of manufactures of this type in industrial countries is considered to be substantially larger than for primary products; consequently, the restrictive effects of high tariffs would be more effective.

While the exact relation of the EEC common external tariff on manufactures to the respective rates in the four constituent tariffs in France, Italy, West Germany and the Benelux countries is not known, it may be safely said that, in most cases, the common external tariff rates lie above the 1957 rates of West Germany, which at present is the largest EEC customer for Asia's exports of manufactures, but below the 1957 rates of France and Italy, which, according to EEC forecasts, are the most rapidly growing economies in the Community. Thus, the trade creation effect in connexion with the latter may be offset by the trade diversion effect arising from the former.

A serious obstacle faced by Asian exports of manufactures is quantitative import restrictions applied in western European countries. Such restrictions, inherited from the ex-OEEC trade arrangements, are generally applied with discrimination against non-ex-OEEC countries and to products such as sewing machines and electric fans which are new export items of some developing countries of the ECAFE region. In view of the recent rapid economic growth and great improvements in the balance-of-payments position in western European countries, such import restrictions are unnecessary and their abolition is of great interest to the developing countries.

Import quotas had been particularly applied to cotton textiles before the short-term and long-term international agreements were concluded. The long-term agreement has allowed for a gradual increase in imports of cotton textiles by the participating developed countries, provided their domestic markets are not unduly disrupted. While such an international agreement is definitely an improvement over individual national import quota restrictions, it still falls short of the expectations of developing countries.

The European Economic Community presents the developing countries not only with new problems of trade with developed countries, but also with new opportunities. Some of these opportunities are strictly contingent. The benefits to developing countries of economic growth in the EEC area are largely conditional on the shape of the Community's commercial policy. The new opportunities are inherent in the declared attitudes of the Community towards measures such as commodity stabilization, policies for expanding trade in agricultural commodities and a general widening of access to the markets of industrial countries. They are reflected in the role which the U.S. Trade Expansion Act of 1962 has envisaged for EEC. Thus the new act empowered the President of the United States to reduce or eliminate U.S. tariffs on tropical products if EEC were to do likewise.

From the point of view of the developing countries, consideration of these opportunities leads to the question of how best to formulate the needs of developing economies and ensure their position in future

discussions and agreements. Among the countries of Asia and the Far East, shared experience and realization of regional inter-dependence may suggest that regional co-ordination, among many approaches, is not the least important one in shaping the trade relations between developing and industrial countries by international agreement. The measures for such co-ordination should include setting up institutions for regional consultation, formulation of a common regional stand in trade negotiations with EEC and with developed countries elsewhere, and permanent liaison with EEC for timely consultation. Also, further detailed exploration of the implementation of the principle of flexibility in "reciprocity" under the General Agreement on Tariffs and Trade (GATT) for developing countries, as announced by the GATT Ministerial Meeting, should be pursued. Inconsistency between the declared policies of the industrial countries and their actions should be constantly examined. There is also a basic need to ascertain the factual position and the common interests of the developing countries of the region in identifying export possibilities and export obstacles in relation to the various schemes that can become the objects of international action.

[From "The Achievement of Coordination in Latin American Trade Policy: Relations with the European Economic Community"; analyses and recommendations of a group of consultants convened by ECLA; Economic Bulletin for Latin America, ECLA, Santiago, Vol. VII, No. 2, October 1962, US$1.50; pp. 129-130.]

The European Common Market -- the European Economic Community -- is a development of vital significance not only for Europe but also for the rest of the world. Generally speaking, the consequences will be highly beneficial. As far as Latin America is concerned, however, not only will they take time to become apparent, but also, in many cases, there is a risk that they may be outweighed by unfavourable counter-effects, already discernible, which will aggravate the already serious difficulties of structural readjustment confronting the Latin American countries.

Our report relates particularly to the policy of protecting domestic production and the preferential treatment accorded to other suppliers by the traditional purchasers of Latin America's commodities; since it is the effects of protectionism and preferential treatment that most concern us at the present time. These effects are clearly evident in the economic relationships between Europe and Latin America. In 1934-38, purchases effected by the members of the European Economic Community represented over 11 per cent of European imports from the Latin American countries; in 1960 the corresponding proportion amounted to hardly more than 6 per cent.

This serious relative deterioration is in danger of being aggravated by the establishment of the European Common Market, and might mean a dead loss in the case of certain commodities. Western Europe, the leading purchaser of wheat, is planning to achieve self-sufficiency at high costs, and may perhaps become an exporter, although on the basis of subsidies; and the same might take place in respect of meat and other temperate-zone products. In the case of tropical commodities, the loss to Latin America will derive from the development of production in the African countries associated with the European Common Market.

An all-embracing policy [for Latin America] dictated by a spirit of solidarity could do much to mitigate these dangers, which are not in any way inherent in the European Common Market, but are adventitious phenomena and could be remedied without affecting the essence and the objectives of the Common Market. If the problems arising are to be forcefully propounded to Europe and an effective solution devised, the Latin American countries must join forces, must co-ordinate their action. The aims of the Alliance for Progress must be extended to the field of trade policy, and this regional co-ordination must be properly organized. Such is the gist of the recommendations for Government action which we have ventured to formulate in the present report, both in relation to the need to reconcile our own trade policies and as regards the machinery for negotiation with economic blocs abroad, beginning with EEC. We would also urge that a similarly unified endeavour be made to influence the course of world developments affecting interests that are vital for Latin America. These developments clamour for speedy action; too much time has been lost for further delays to be admissible. Hitherto the Latin American countries have all acted on their own, and no collective response has yet been made to the note transmitted to us by EEC, also collectively, in 1958.

It is not only traditional exports that are involved. Europe, like other great world centres of industry, could make a powerful contribution to the development of Latin America if it helped us to develop our industrial exports by means of liberal customs treatment and measures of technical and economic co-operation calculated to serve as an incentive to the industries concerned.

The solution lies in new patterns of international trade, based on the expansion of trade in industrial commodities which, without prejudice to the traditional trade flows, will supersede the outdated system of an international division of labour between industrialized countries and countries producing primary commodities.

This is a structural solution, like the basic solution for Latin America's problems in general: reforms at home, in the economic and social fields, and reforms in the patterns of external trade. This is the significance of the efforts initiated recently to establish the Latin American common market.

We cannot hope to surmount the formidable difficulties attendant upon our economic growth without the common market as a basic factor in these radical reforms. This is Latin America's major problem. And it will have to be solved in the next few years: under what political and institutional auspices, depends largely upon the scope and direction of international co-operation.

In this connexion, the Alliance for Progress marks the launching of a new policy. It will have a long and a difficult course to steer, and the share in the responsibility to be assumed by the members of EEC has not yet been assigned. We should like to see Europe participating on a large scale, with public funds as well as private capital, in the financing of Latin American development plans, either by joining the Alliance, or through its own machinery. We should like to see Europe giving its technical and financial support to Latin America's efforts in relation to the regional common market. Such possible financial co-operation would not obviate the need to seek a way out of the twofold trade-with-Europe dilemma, an excessive degree of protectionism (at present institutionalized in the shape of a common agricultural policy which will cover all temperate-zone products, including meat and grain), and the preferential tariff treatment applied to tropical commodities (coffee, cacao, bananas and so forth) which could conceivably be extended to other products.

The combination of measures in these two fields is of decisive importance. Not only is the rate of economic and social development of the Latin American countries at stake, but also the future policy of the Latin American common market -- whether it is to be pre-eminently a self-contained effort or whether by offering opportunities to goods of external origin, it will become an active instrument of international trade. Nor does all this apply merely to immediate trade problems. Latin America must also look ahead and make ready to play its future part in overcoming the difficulties that are bound to arise, in relation both to basic commodities and to other aspects of world economy.

INTERNATIONAL COMMODITY STABILIZATION SCHEMES AND THE EXPORT PROBLEMS OF DEVELOPING COUNTRIES

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This is a summary of the original paper.

A question frequently asked in South America is: "Why don't the United States government and the international assistance agencies concentrate their efforts on stabilizing the prices of our exports? This would mean more for Latin America's economic development than all of the loans and technical assistance we are likely to receive." This paper's purpose is to suggest the basis for an answer.

There is no doubt of the seriousness of the problems posed for the developing countries by the behavior of primary commodity exports. But in seeking solutions, we must concentrate on the factors that are basic to the process of economic development, rather than on "symptoms."

Inherent in the question quoted above, and in much of the literature on the subject, are several ambiguities and questionable assumptions that need identification:

Ambiguities and Questionable Assumptions

(1) There is an ambiguity between stabilization and the maintenance of a fair price. Although most proposals for dealing with commodity problems have

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stabilization as their announced objective, rather than long-term price fixing, they usually have a bias in favor of halting or reversing declines in prices or earnings. Thus in practice they are often really price or income maintenance programs.

(2) Even when stabilization, rather than price fixing, is the objective, there is often ambiguity in the concept of stabilization itself. There are any number of methods of calculating the long-term trend in prices or export proceeds, and the answers they give can vary widely. Not all approaches to stabilization require the calculation of trends. For example, under a buffer-stock arrangement one might try to restore the original composition of the stock of money and commodities, say once every three years.

(3) "Primary commodities" cannot always be defined unambiguously. Many commodities so classified involve considerable processing, requiring the use of large amounts of capital rather than labor. The development of synthetics, and of new production methods, make it even less certain that such commodities are always primarily the combined product of raw materials and labor.

(4) Nor is it true that the primary producing countries are largely the poorest and least developed countries, which would thus be the main beneficiaries of stabilization schemes. The industrial areas of the free world in 1960 exported primary products worth nearly as much as those produced by the non-industrial areas. Primary products constitute more than half the total exports of Denmark, Australia, Ireland and New Zealand; less than half the exports of India and Israel. Thus any scheme designed to help the poorer countries alone involves some arbitrary classification of countries.

(5) There is considerable evidence that relatively short-term fluctuations in export proceeds are only a contributing, and not a major, cause of the balance-of-payments difficulties of most poor countries. Moreover, when temporary shortfalls in export proceeds do produce such difficulties, they have been handled fairly easily in cases where export proceeds have been expanding satisfactorily over time and appropriate financial policies have been followed.

(6) Fluctuations or declining trends in export proceeds are not always beyond the control of the individual producing country. Apart from crop failures and natural disasters, a decline in exports may be the result of internal price or investment policies.

(7) Finally, it is said that fluctuations in export prices and proceeds are a major deterrent to economic development. This is not necessarily so, even if one accepts that reduced export proceeds may make it necessary to cut down imports, which constitute a high percentage of fixed investment in less developed countries. Whether broadly

based development is achieved depends on the nature of investment as well as on its total: high export proceeds will not achieve development if they are spent mainly on consumption, or on building luxury apartments and offices.

Individual Commodity Agreements

Individual commodity agreements are generally of three types: (1) those which maintain prices by limiting market supplies through export quotas; (2) those employing multilateral long-term contracts; and (3) those which maintain prices within a given range by means of purchases and sales from an international buffer stock.

The buffer stock arrangement has important advantages when the basic purpose is the elimination of sharp and reversible fluctuations in world-market prices of storable commodities, particularly if the manager of the stock is permitted to operate freely on his informed judgment about longer range supply and demand conditions, and if he has sufficient commodity and foreign exchange resources to offset the reversible fluctuations peculiar to the individual commodity. But his judgments may be thwarted by national subsidy programs to producers to compensate for reduced international prices. His operations may be threatened if large stocks of the commodity exist, without an agreement on the rate at which the stocks can be liquidated. And many commodities cannot be stored for long.

The best example of multilateral long-term contract arrangements is provided by the series of International Wheat Agreements. Here consuming countries undertake to buy agreed quantities at prices no less than a stipulated minimum; producers undertake to sell agreed quantities at stipulated maximum prices. Almost inevitably, there will be a free market price outside of the agreed price range. Producers will tend to sell their extraquota output at the free market price, which, if it is well below the minimum quota price, will tend to undermine the contract price, and create a two-price system in the consuming countries. The lower price for extraquota output may, however, tend to discourage production.

The export-quota approach, under which prices are divorced from realities of the world market with governments absorbing excess production or limiting output through price or production controls, is much more common. Theoretically, this approach could stabilize world prices in the same way as a buffer stock. Governments accumulate stocks when prices are low, and liquidate them when prices are high. But individual governments have a different objective from an independent buffer-stock manager: they wish to keep world supplies as small as possible, but to maximize their own share of the limited supply. Moreover, if one country is an important supplier, and has built up a large stock, this will give it special bargaining power in the setting of export quotas.

A true stabilization program can only be successful if the long-run equilibrium price which it seeks to approximate is permitted to have an unobstructed impact on output in individual countries. Otherwise, the scheme will result in the accumulation of stocks which will continually threaten the market. Production controls can be introduced to match the export quotas established, but in this case the objective of the scheme becomes one of establishing "fair" or "equitable" prices, rather than limiting fluctuations above and below a long-run equilibrium price. All this amounts, in effect, to saying that true stabilization agreements for commodities are probably not politically feasible. If the aim is to establish a long-run equilibrium price, cost and supply conditions in producing countries will require substantial changes in their relative shares in export markets, whereas all countries joining commodity schemes wish to maintain or increase their share of the world market. There is also a further problem with commodities like coffee with long gestation periods, where equilibrium prices are difficult to determine, and where prices could only be maintained by accumulating large stocks over long periods during which changes in supply and demand conditions might alter the equilibrium price considerably.

Implications for Development

The implications of such international stabilization or price-fixing schemes depend largely upon their accompanying national programs. For example, if under an export-quota scheme, domestic output is maintained and the government buys and accumulates stocks of commodities, the stocks constitute an unproductive investment, while at the same time no discouragement is given to investment in the primary-product industry, and movement of resources out of the industry tends to be delayed. What would be highly desirable for an individual producer country is a modernization of its primary product industry permitting it to maintain or expand output at lower cost. This applies even if total exports are limited by international agreement: in such a case, the ideal then is to increase productivity through modernization and the elimination of high-cost producers, while at the same time keeping output from rising so fast as to depress world prices. But a lowering of prices may discourage investment for higher productivity: while high prices (if low-wage labor is plentiful) may provide no encouragement. Low prices alone may not greatly affect output or the transfer of resources in the short run: what may be needed is a government program designed to take marginal land or resources out of production, to find productive employment elsewhere for these resources (including labor), and to encourage investment for higher productivity in the remaining area.

It is doubtful whether any international export-quota scheme can maintain world prices above long-run equilibrium levels for any substantial length of time. Such schemes may provide time for countries to adjust output and costs to long-run market realities. But the adjustments

will have to be made on a national basis, possibly with external help from financing and technical assistance agencies. Without such an adjustment program, an international stabilization scheme may simply do harm by encouraging countries to continue relying on the export of two or three primary commodities in the face of uncertain or possibly adverse long-run supply and demand conditions.

Many commodities -- particularly those with synthetic or closely competing substitutes -- are in any case not suitable for stabilization schemes. Commodity study groups can of course be of value, recommending export and import policies designed to achieve more orderly markets. But I doubt the feasibility of international stabilization agreements for more than a few commodities such as coffee and cocoa. Certainly it is highly unrealistic to believe that a series of international commodity agreements could solve the whole problem of stabilizing the export proceeds of most of the less developed countries.

Schemes for Stabilizing Total Export Proceeds from Primary Commodities

Realization of the shortcomings of individual stabilization schemes has led to various proposals designed to stabilize the total export earnings of primary exporting countries. The objective of the schemes currently being discussed is not to maintain particular levels of export earnings over long periods or to limit exports as a means of maintaining prices. Their principal aim is to provide compensation that will reduce the impact of substantial declines in export proceeds from the level of the immediately preceding years.

One proposal is that of a UN Committee of Experts, entitled International Compensation for Fluctuations in Commodity Trade (1961). This suggests establishment of a development insurance fund, to which both developed and underdeveloped countries would contribute, that would make loans and grants to producing countries to compensate for shortfalls in export proceeds as measured against a moving average of preceding years. A disadvantage of the proposal is that it provides equal insurance to all countries, regardless of the degree to which they are vulnerable to fluctuations in their export proceeds. It is deliberately designed so that in spite of its "insurance" element, the high-income countries will not receive benefits equivalent to the premiums they pay. And although meant primarily to deal with the highly vulnerable primary products, it provides compensation for all commodity export proceeds. Some of these anomalies are avoided by a scheme proposed by an experts group appointed by the Secretary-General of the Organization of American States, whose proposal limits benefits to the low-income countries, and provides compensation in the form of repayable loans, thus more nearly approaching the principles of a stabilization operation.

The Relationship Between Commodity Stabilization and Export Proceeds Stability

The justification for such schemes for compensation against shortfalls in export proceeds is that these fluctuations are the result of world supply and demand conditions over which individual countries have little or no control. Nevertheless, each primary commodity that fluctuates markedly has its own pattern of fluctuations, setting its own problems for stabilization. Sometimes the fluctuations are on the demand side, varying with business conditions in the industrialized countries; sometimes they are on the supply side, as in the cases of coffee and cocoa, where cycles arise from the long gestation period between planting and the first crop. In addition, as pointed out earlier, the volume of export proceeds can be considerably affected by national policies: for instance, exports will inevitably fall if the exporting country itself consumes more of the commodity concerned without increasing total output. It is simply not possible to devise a scheme for reducing fluctuations in prices or export proceeds, after eliminating long-term trends, that will cover all commodities and all countries, since there is no basis for determining a generally applicable trend in export proceeds. Moreover, any formula adopted to "stabilize" export proceeds may be rather irrelevant to the problems of a particular country: whereas one country may be largely dependent on exports of a commodity with a normal cyclical period of seven years, and a long-run downward trend in price, another may face a cyclical period of three years, with no observable long-run trend. If stabilization of export proceeds is the objective, a scheme for stabilizing export proceeds from single commodities will be more relevant than a general export proceeds stabilization scheme.

A scheme for the compensation of total export proceeds, such as the UN Experts' scheme, is thus far removed from the traditional concept of stabilization. The UN scheme insures the primary exporting countries not against fluctuations in prices or proceeds, in relation to a trend, but against a decline in export proceeds calculated by arbitrary comparison against an average of the three previous years. This formula is not only arbitrary: its value to the exporting country faced by a sharp percentage decline in export proceeds would vary greatly according to whether these proceeds had over the previous three years been stable, rising, or falling. Alternative general formulas are likely to be equally arbitrary in their application. Once we get away from the basic idea of stabilization, the most appropriate means of compensating countries for shortfalls in their total exports can only be determined in the light of the problem of adjustment for the particular country -- in other words, from the standpoint of the balance of payments as a whole.

Automatic Versus Managed Programs of Assistance for Shortfalls in Export Proceeds

The compensation or "insurance" fund approach to the problem of fluctuations in commodity trade shifts the emphasis from the commodity trade problem as such to the problem of the balance of payments as a whole. This may be a good thing, given the drawbacks of commodity stabilization programs. But if the balance-of-payments approach is adopted, it should include other factors besides commodity fluctuations -- such as difficulties caused by increased imports, by capital flight, and by problems in servicing suppliers' credits contracted in previous years. Sixty out of eighty-seven primary exporting countries increased their export proceeds between 1959 and 1960; yet sixty-five of these eighty-seven countries experienced a deterioration of their trade balance, usually because of increased imports.

The balance-of-payments approach raises several questions:

(1) Should balance-of-payments assistance for shortfalls in export proceeds be provided on an automatic formula basis or under a managed loan program?

This question involves some of the same controversial considerations that have arisen with respect to the operations of the International Monetary Fund (IMF). Those who prefer a managed fund have taken the position that the forces responsible for balance-of-payments difficulties are not always beyond the control of the deficit country, and that the country concerned should be required to adopt appropriate policies and measures toward correction of the deficit as a condition for receiving assistance. This approach seems correct also for export proceeds compensation schemes: although such schemes do not deal directly with deficits arising from increased imports or capital outflow, the various elements of the balance of payments are closely interrelated. If capital funds are made available to a country, they should not be used simply to maintain consumption, but should contribute to economic development and to correction of the forces that brought about the balance-of-payments difficulties.

(2) Can balance-of-payments difficulties arising out of such fluctuating export proceeds be handled by the IMF, or is a specialized institution necessary?

It may well be that the IMF has in times past been too conservative in providing assistance for fluctuations in export proceeds of less developed countries. However, it appears today to have no lack of resources: in 1961 net drawings by the "primary producing" countries from the Fund amounted to over $600 million -- considerably higher than even the most generous annual net benefits for low-income countries contemplated under the UN Experts' scheme.

(3) Should compensations for export proceeds shortfalls take the form of long-term loans or grants?

An objection to use of the IMF to provide such compensation is that the Fund's Articles of Agreement require repayment of drawings as a country's position improves, and do not allow a country to remain indefinitely in debt to the Fund. The UN Experts' scheme requires repayments only when the recipient country's export proceeds rise in accordance with their formula; one version of their scheme, indeed, requires no repayment at all. The OAS Experts' scheme, on the other hand, follows the same principle as the Fund: it is intended only to provide short- or intermediate-term assistance for reversible fluctuations in export proceeds from primary products.

Long-term loans or grants may well be desirable and necessary when such shortfalls are not reversible, in order to enable a country to make structural adjustments to the problem of declining export proceeds. But the assistance should not be automatic, and it must have regard to how the funds will be employed. Since the IMF is not in a position to provide long-term capital loans or grants, this is a job for other institutions such as the World Bank and its subsidiary, the International Development Association, and the U.S. Agency for International Development.

As far as short-term fluctuations in export proceeds are concerned, the IMF seems adequately equipped to provide assistance when this is considered as a balance-of-payments problem. However, the Fund might well consider revising its regulations to permit more liberal drawings by members, both for meeting temporary shortfalls in export proceeds arising from changes in international commodity market conditions and even for sharp declines in export proceeds appearing to call for more permanent adjustments. [Note by Editor: On March 5, 1963, the International Monetary Fund announced that it would in future permit larger drawings -- up to 125% of a country's quota -- to meet shortfalls in export proceeds "of a short-term character largely attributable to circumstances beyond the country's control."]

Contribution to Economic Development

There is no doubt that instability of export earnings can have an adverse effect upon the level of investment and upon planning for economic development. However, the most serious problem arising out of international commodity trade facing most of the less developed countries is not that of reversible fluctuations. It is rather, I am convinced, the problem of long-run declining or stagnating export proceeds, or a slow rate of growth in export proceeds relative to the country's foreign exchange requirements for imports and debt service necessary for sustained growth. These are structural matters which concern the volume and direction of investment in developing countries. They can best be dealt with,

not by automatic compensation for all or part of the shortfalls in export proceeds, but by the provision of funds by international development financing institutions expressly with the purpose of broadening the export base or otherwise improving the export capacity of low-income countries.

Far too little attention is being paid today to the problem posed by the low rate of growth in world demand for many primary products that seems likely over the next couple of decades. In fact, one of the dangers of concentrating on schemes for compensating for shortfalls in export proceeds, or for maintaining the prices of individual commodities, is that they divert attention from the longer-run problem of changing the entire export base of the developing countries. To grow, these countries must add to their exports not only primary products, but also an increasing volume of manufactures. This is a problem that involves world-wide trade policies, as well as the direction of investment and development policies.

It has been suggested that payments for export shortfalls should be provided in the form of loans for economic development, rather than as automatic compensation. A difficulty with this suggestion is that development assistance is increasingly a continuous process, which cannot be turned on and off like water from a spigot. But if international development assistance organizations are maintaining a close and continuing relationship with a developing country, they might be able quickly to provide supplementary financing for investment projects in danger of being delayed or eliminated by sudden shortfalls in export proceeds. This approach could perhaps be institutionalized by creating a special committee consisting of representatives of the IMF and the development financing institutions to consider special development assistance to countries whose investment programs were endangered by shortfalls in export proceeds. The emphasis of any assistance should if possible be put on projects which would make the countries less vulnerable to such shortfalls.

Finally, when we come to consider individual commodity agreements, it is a mistake surely to assist countries through helping to enforce their export quotas or through direct financial assistance without insisting that the schemes provide for long-run structural adjustments. In my opinion, any new international commodity agreement should meet the test of a defensible international commodity accord, as recently defined by Dr. Boris Swerling -- 'promotion of commercial marketings, definite incentives to reallocate productive resources, and mechanisms for gradually superseding the basic agreement.'

SOCIOLOGY OF DEVELOPMENT

Development officials and economists are beginning to recognize that worthwhile economic changes are often blocked, particularly in traditional societies, by long-established institutions and practices. But, improved understanding of the sociological dimension of development and evolution of methods by which this new knowledge could be applied in practice have both lagged considerably behind recognition of the importance of social and psychological factors. This section contains three articles dealing with this problem. The first, by a development planning official in an African country, outlines the kind of help which a practitioner would like to obtain from social research. The second, by an economist-anthropologist, demonstrates how social research was able to explain why technological innovation hastened the modernization of one village in South India and failed to have a similar effect in a second village only a few miles away. The third consists of excerpts from a paper by a U.S. government official -- well known as an economic historian -- containing some practical suggestions for accelerating the transformation of traditional rural attitudes and expectations.

SOCIAL RESEARCH AND RURAL DEVELOPMENT

J. H. Mensah

[From "Social Research and Rural Development," a paper presented at the World Food Congress, held by the Food and Agriculture Organization of the United Nations, in Washington, D. C., from June 4 to 18, 1963.]

These are excerpts from the original paper.

In all developing countries, it is a generally accepted preposition that the prospects for further economic growth are bound up with the degree to which, and the speed at which, they can transform the structure of their economies away from a heavy dependence on agriculture. Therefore, it is necessary to bear in mind that the process of agricultural development must in the long run lead not to an increase in the relative contribution of agriculture to the total output of the economy, but to a decrease in its contribution. This fact must be recognized in the formulation of development policy. But, it cannot be considered to justify any disregard for agriculture in the making of economic policy -- quite the contrary. For the other half of this same developmental equation is that the growth in national wealth cannot proceed very far until agriculture itself has been extensively revolutionised. It is only when this happens, when the productivity of farmers is high enough to enable each farmer to feed a multiple of families, that it is possible to transfer labour into the production of other commodities that go to sustain the modern life.

Therefore, the agricultural revolution is necessarily the first revolution that is required on the way towards economic prosperity. This revolution must not

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be viewed in terms of abstract mathematical aggregates. It must always be considered at the level of the individual farmer: how much he can produce now, and what it will take to enable him to produce more next year and even more the year after. Modern research facilities are available in some parts of the poorer half of the world to evolve the improvements in agricultural technology that the farmer needs in order to achieve greater productivity. It must be emphasized, however, that modern technology is not in fact available to the vast majority of farmers in the developing countries. It is very easy to imagine that the resistance to change, the conservatism of farmers in the poorer parts of the world, is all that accounts for their failure to adopt improved farming technology. I should, however, like to call your attention to this fact: that the stagnation of agriculture over large areas of the world is due to failure of agricultural science to evolve suitable technologies and to propagate them effectively among farmers. This is, in my view, a far more important explanation of the role of agriculture in general economic backwardness than the traditional reasons with which we like to salve our consciences.

Let me illustrate this with the situation in my own country. Ghana, as you all know, is the world's largest producer of cocoa. Until about 1950, the whole country was more or less run as an operation to facilitate the export of cocoa, gold, and other raw materials. After the war, a virus disease -- swollen shoot -- attacked cocoa. By the late 1940s, the industry was in danger of collapse. Between 1948 and 1954 a crash programme of scientific research and disease control measures was instituted which has had absolutely fantastic results. Farmers who used to have to wait 7 to 10 years for their crops to mature can now get a return on their investment in less than 5 years. This was only one by-product of the effort that was mounted initially to deal with the virus disease problem. Agricultural research discovered methods not only of improving the stock of cocoa but also of dealing with a number of other problems of cocoa, such as capsid disease. Between 1954, when these researches started to yield results, and 1962 the output of cocoa in Ghana increased by nearly 70%. It is generally considered that the contribution of increased yields was as great as the contribution of increased acreage in producing these results.

The contrast between the situation in cocoa and the situation of all other crops grown in Ghana is quite startling. Up to the present, apart from a few efforts in respect of maize, no other crop has been subjected to the same kind of scientific effort that was lavished on cocoa. A Ghanaian farmer who grows grains or tubers or vegetables is doing at this stage in history exactly the same thing as he and his forebears have done for hundreds of years. The seed he uses is the same; his methods of cultivation are the same; his implements have hardly changed. No information exists as to how he could do better. This farmer is very often the same

man who has embraced the new technology in cocoa and has succeeded so well that the world cocoa markets are reeling under the weight of oversupply.

This was only meant to illustrate what I consider the most important aspect of the problem we are faced with in trying to improve agricultural productivity. If we get things out of focus, if we comfort ourselves with the idea that most of our difficulties in improving agriculture originate only in the farmer, then it seems to me we will never start making the sort of effort that is necessary.

Communicating with the Farmer

It is against this perspective that I would like to consider the possible methods that might be used in making the farmer as receptive as possible to new ideas and technologies. Here again, I would like to start by sounding a note of caution. However hallowed a custom, however inviolable an institution, most people regard them as a means rather than an end. Even the most mysterious magical rites are a means to security or prosperity and are regarded as such. Therefore, we have constantly to remind ourselves that the farmer is on our side; that his institutions and customs are not an immovable obstacle but are basically regarded by him as a means to the same ends that we seek; and that if he finds these institutions are not working towards those ends then he will sooner or later abandon them. Naturally, from the point of view of the necessities of human behaviour, the new modalities also have to be institutionalised and reduced to routines and customs. But which new ways of behaviour or methods of production are successfully adapted will inevitably be determined by rational and utilitarian considerations.

Having said all that, I can still affirm my belief that it is very much easier to get new technology across to the farmer, to get him to change or abandon or even reverse his mode of behaviour, if we understand him than if we don't. I should like to say, first of all, that an important part of understanding can be gained through just knowing the farmer's language. When you speak somebody's language you do not have to be told all the unspoken assumptions, all the nuances of the meanings of the words and the significance of actions. I am constantly reminded of this when I hear English translations of songs and sayings in my own language. Expressions which have great meaning in the original language become childish or absurd when translated, partly because the translator cannot find the right equivalent idiom but sometimes because such equivalent just does not exist. It seems to me, therefore, that to teach the language of an area to an agricultural extension officer or, even better, to pick the agricultural extension officer from the same area, is a technique capable of abridging considerably some of the difficulties of communication and teaching that we now encounter in extension work.

It is virtually impossible for one man, and especially for a group of people, from one country to adapt themselves entirely to the environment of another country. Let me illustrate this with an example. In Ghana, certain expatriate agricultural extension officers have been very effective in assisting the agricultural extension services. But I was struck at one time to find out that these foreign experts had got together and were publishing a news bulletin which was meant to reach the farmer and in which technical information had been very carefully translated into such language as the farmer could be expected to understand. What had not occurred to these people, however, was that while they could teach the farmers in their own country quite effectively through a newsletter, in Ghana such instruments are virtually valueless because the farmers cannot read themselves and treat things read to them out of newspapers as news and entertainment but not as serious practical information. The latter always has to be conveyed by a known responsible person. This is the sort of mistake in choice of instrument of communication which in the long run can only be avoided by people who have a long-standing stock of background knowledge of what will work and what will not work among a given community.

The other thing that one notices about people who are trying to teach the farmer to improve his lot is a certain impatience. There are two aspects of this problem. Firstly, the would-be teacher of the farmer is often, even when he is of the same nationality and language, of a completely different level of education and knowledge. Many times he is simply incapable of translating the knowledge he is to impart into meaningful terms in his own language because he himself has learned it in a different language and does not know it well enough to translate it convincingly. Sometimes the expert is master of his subject and convinced of the truth of what he himself is saying, and he assumes that the truth of what he knows is in a sense self-evident. But of course new technology is not self-evident. What is self-evident is the old technology. New technology has to be proved. It has to compete with methods that are known to work. Therefore, a part of the work of the extension officer is not only to communicate but also to prove his message. However, what constitutes proof is not something that can be derived from general rules; nor can it indeed be expected to be the same for different groups of people and in respect of different subjects.

The utilitarian function of detailed sociological research seems to be to enable the extension officer to establish contact with the farmer. As I said before, I believe that a large part of the explanation of economic backwardness lies in the absence of the requisite technology and in the absence of people who understand how to convey it. It is no use, and it may even be positively harmful, to enable the extension officer to establish contact with the farmer unless he has a workable and profitable new technology at his disposal. But having this, his entry into

the farmer's area of recognition is considerably eased if he knows how to catch and hold the farmer's eye. There seem to be two sorts of approach here.

In some countries like my own, a specialised community development officer, who has a well-developed psychological technique for gaining an entry into a farmer's attention, first goes in to create the right atmosphere and then the extension officer is supposed to follow with technical information. Such a method of approach runs two major risks. Firstly, the community development officer usually makes his initial approach through an activity that is attractive. The subsequent extension effort may not catch on because it is less attractive. Secondly, the confidence of the farmer may get attached to the person of the community development officer with his specialised knowledge of psychological methods. It will then not be possible for this confidence to be transferred to the agricultural extension officer who is not so well supplied with techniques of approach.

The other method, therefore, seems preferable under which the extension officer himself establishes the initial contact with the farmer and goes on to teach him the new techniques. This, however, raises the question of the training of the extension officer. His background is usually that of agriculture rather than community development. Often this choice of career has been closely determined by his bent and interests. In general, it cannot be expected that he can be turned into a first-rate community leader. But there are a number of ways out. A workable technology carries its own persuasion. An extension officer who is culturally and linguistically of the people, and stays in a place long enough to get to know the farmers and become known by them, can establish reasonable rapport without the exercise of special techniques of persuasion.

Some Preliminary Approaches to Rural Social Research

It would seem, therefore, that the main contributions that social research should try to make towards facilitating the work of the extension officer should be at the general rather than at the detailed and particular level.

The first would seem to consist of the elaboration of certain broad principles of approach which will work with a given group of people, identifying especially those actions or approaches that should be positively avoided. The academic social scientist will naturally object to this way of looking at his work. For him "real research" consists of detailed analysis of the social and personality forces at work within each village. And often the very completeness of his investigations leaves him with such an awareness of the complex social reality that he cannot generalise. The answer of the practical policy maker must of

necessity be that there really is not the time for such detail. And, whatever we do, we cannot afford a trained social scientist to investigate thoroughly every group among whom an extension effort is to be mounted. In practice, we have to be satisfied with research results indicating the suitability of a given variety of crop to an ecological region without investigating the particular environmental conditions of each village in which it is to be introduced, and social research should tell us generally how to approach the people in a cultural region without the need for special social analysis of each village.

The second group of questions to which social research should seek to return answers in the form of general principles concerns the conditions for the spreading and the permanence of the results of extension work. We need research into the dynamics of the village group, to identify those people who will embrace innovation themselves and whose success will be copied by others. In Ghana we have had a long history of failure with agricultural extension owing to our lack of knowledge in this field. For years we maintained agricultural stations on which interesting research was carried out and to which chiefs and other eminent citizens were regularly brought for visits. But farming remained almost totally unaffected by these agricultural stations. The demonstration had not been designed with any potential emulators in mind. The type and scale of farming operation was clearly beyond the financial and managerial reach of the people who came to see it. And even if a few advanced farmers had been converted, their example would never have spread, because some of the qualities required of the new model farmer, e.g., the ability to read, operate mechanical equipment, or keep accounts, were clearly not possessed by the mass of Ghanaian farmers.

More recently, our extension efforts have become more realistic. Attempts have been made to recruit a cadre of progressive farmers in each village and to spread new technology through the successful and profitable adoption of the new technology by such model, but not too model, farmers. Social research must aim at formulating for the extension officer or the community development officer some valid general principles for identifying those farmers who will adopt the new techniques, who will persist in its successful practice, and whose example will move other farmers to emulation. Again, it seems that such research can only be done for large groups and its results generalised: there is neither the time nor the manpower for a particularist approach.

It is, of course, not possible to make an exhaustive catalogue of the lines of social research that would most effectively assist the establishment of successful contacts between the farmer and the extension officer. But it would seem necessary to keep to the fore certain broad principles.

Firstly, the concern with the human factor in social research must not be allowed to hide the fact that economic development only takes place when new technology has been transferred from the research

laboratory on to the farm. While humanistic values must have their proper place in social policy, as far as concerns agricultural development the essential tests of progress must be related to progress in production. This means that the education of the farmer is an intermediate step, a means to the final end of increased commodity production. It is, unfortunately, a fact that in many instances efforts at rural development have stopped short at the education of the farmer, whether this be education in community values or education in farm techniques. Social research must, therefore, solve the twin problems of how to implant new technology in the farmer and how to assure the translation of this technology into a permanent improvement in actual farming practice.

The second major principle that occurs to one is that social research must regard existing practices and customs as a formalization of past experience. The important fact is that every given community has established its own equilibrium, at however low a level, with a combination of processes which work. Rural development must seek to substitute for the old combination of practices a new one with a higher productivity. Whether the new constellation is made up of a mixture of new and old elements or is predominantly new, it must constitute a new rational system. If one searches for the rational elements in existing social systems, it becomes apparent that certain institutional changes are not necessary for agricultural progress. For instance, in a fishing community you generally need a day off each week to mend the fishing nets. In many fishing communities, the god of the sea is said to forbid fishing on one day of the week. Whatever new fishing technology is substituted for the old, it will in general be necessary to provide some period for the repair of equipment. It has not been unknown, however, for a Civil Service apparatus, which is naturally not bound by the law of the sea-god, to attempt to give the fishermen a full working week including the former day of the sea-god and then itself to take Sundays off as a day of rest. This is only a small illustration of the more complex problems that can arise out of a failure to look at social institutions as a formalization of experience.

The more nearly an existing institution or practice touches the basic livelihood of a people the more fossilized and unquestionable it tends to be. The farmer has great respect for these things which work and which actually keep him and his people alive. By the same token, he is least likely to place this same degree of confidence in a different practice or to risk his very survival experimenting with new-fangled ideas. It is probably true that agricultural extension in the developing countries faces a harder task in trying to improve the productivity of food farming than in revolutionising non-food farming. But, here again, one is persuaded by one's experience that a workable new technology will in the long run gain acceptance. For it will be readily apparent to everybody that those farmers, who adopt the new customs and practices, gain a more ample subsistence -- and in a village people

do know what is happening in each other's kitchens. In fact, it has happened before now that a particularly successful new practice has acquired an important place among the most hallowed magical systems of a people. In our own time in the field of medicine the various cures for malaria and the all-conquering penicillin have, so to say, been canonized by various people in West Africa. It is, of course, required that such new fetishes should be especially potent in saving or promoting life. Small marginal improvements in food farming technology are unlikely to gain adherents in a region where the level of subsistence leaves only a small margin for error.

The third general principle that one might draw attention to is that it is unnecessary, and sometimes even a hindrance, for social research to attempt to establish for any community the "pure" form of its institutions and customs. For these pure forms are usually guarded by the most reactionary and uncompromising custodians. These are usually the people whom social change is going to leave behind. It is important for the social researcher to know what modifications and compromises in existing customs are being made by the most progressive minority in each community. It will generally be found that in every group there are people who are taking all the socially allowable liberties with the strict provisions of the law and customs of the group, and doing so with such great profit that they carry considerable prestige with the group.

These members of the liberated minority can often provide instructive pointers toward the possible lines of rural change. Their standing, however, tends to be very low in the eyes of administrators and social scientists. For the administrator, they are a part of the forces undermining those established institutions of law and order through which he can contain the group. The literature is full of lamentations about the developing urban proletariat in African and other developing countries: the young men and women who have cast off the constraints of tribal authority and are experimenting with new modes of social behaviour away from the villages. Their counterparts in the villages are equally regarded with disfavour by both administrators and social scientists. One even sometimes hears complaints about social customs becoming "spoilt" by the intrusions of modern life. Such complaints come from scholars who do not seem to consider that the pure custom that is supposed to be ruined is itself the product of a long process of evolution and change. A general prescription for rural social research would, therefore, be that it should pay particular regard to those aspects of village life and to those members of the village community who seem most susceptible to change or who are already changing. Research into pure forms, which are usually more talked about than practised, is in no way deeper or more significant than research into the ostensibly adulterated.

A fourth general principle that one might mention concerns the question of time. Problems of rural development are too pressing for their solutions to be made to wait upon the conclusion of lengthy social research. It has been suggested above that some of the problems of communication and understanding do not arise where the agents of change are of the community or have a deep understanding of it. It has also been urged that really effective new technology carries its own conviction in its demonstrable superiority. When the social scientist comes to assist the extension or community development officer to make contact with the farmer and to spread new technology he does not start with the odds as much against him as might be imagined. Usually he will be very reluctant to formulate those working principles that are required by the promoters of rural development if he has not been allowed as much time for research as is ideally necessary. But the planner must force the social scientist to cut a few corners if the pressing time table of contemporary economic progress is to be met.

It is a saving fact in this regard that serious research for rural development cannot be done on a once-for-all basis. As the community's economy changes so do its institutions and internal dynamics. Rural social research must, therefore, cover the same communities at periodic intervals in order to ensure that its conclusions and precepts remain relevant.

A CUSTOMARY SYSTEM OF REWARD AND IMPROVED PRODUCTION TECHNIQUES

T. Scarlett Epstein

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[This article summarizes some of the results of the author's research conducted during a two-year field study in two neighboring villages in Mysore, South India. The detailed results of Dr. Epstein's work in India have been published in book form under the title Economic Development and Social Change in South India, a brief notice of which follows these excerpts. With training both in economics and anthropology, Dr. Epstein effectively uses both disciplines in presenting a realistic analysis of the differences in the ways in which certain economic and social changes have taken place in the two villages. In this article, the village names are pseudonyms. The terms Peasant and Blacksmith, when written with initial capitals, refer to specific Hindu castes rather than to general occupational groups.]

This is a reprint of most of the original article.

One of the first attempts to increase output in underdeveloped communities usually takes the form of suggesting improved methods of production. Farmers or craftsmen are shown how to increase the efficiency of their customary production. But the economic planner, or community project official, frequently meets reluctance on the part of the indigenous population to accept and implement the new and more efficient ways of performing their customary activities. This usually leads

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to criticism of the people concerned: they are called conservative and described as lacking in enterprise. I myself encountered such a sequence of events in Wangala, a village situated four miles south-west of Mandya town in Mysore State.

Ever since the last war, officials of the Agricultural Department have been pressing Wangala farmers to experiment with the Japanese method of paddy cultivation, which according to official estimates could increase the output of rice per acre considerably. However, even the few farmers who were prepared to try the new method, and who were given fertilisers free by the Agricultural Department, found that they were unable to get a group of women to transplant the seedlings according to the Japanese method. This required that plants had to be spaced properly, so that one acre would take longer to plant than by the customary method. The officials complained to me about the conservatism of Wangala's population. Since I had found Wangala people extremely progressive in their attitude towards sugar cane cultivation, an entirely new venture to them, I tried to investigate their reluctance to experiment with an improved method of paddy cultivation. I soon began to realise that the rationale of their conservatism lay in the existence of a customary system of rewards.

Systems of Reward and Innovation

This hypothesis was confirmed when I saw the readiness of Dalena farmers to implement the Japanese method of paddy cultivation. Dalena lies about six miles west of Mandya town and is, therefore, situated near Wangala; in the same regional economy and the same culture area. The decisive difference between the two villages is that Wangala lands were irrigated about 1930, when the Visvesvarayya Canals reached the village, while Dalena lands have remained dry, because they lie above the canal level. Paddy is a crop which needs lots of water and, therefore, due to the shortage of rainfall in the Maidan of Mysore, can be grown only on irrigated lands. Wangala had had some tank irrigated lands even before canal irrigation reached the village. Thus, some of Wangala's farmers had been accustomed to growing paddy long before canal irrigation made the growing of cash crops a practical proposition.

Traditionally a gumpu, a group of ten or twelve women, was employed as a team to transplant the paddy seedlings from the nursery to the paddy fields. Each gumpu had a leader, whose responsibility it was to see that her co-workers turned up on the day arranged between her and a Peasant farmer; the leader also received a certain fixed amount of crop per acre of paddy lands her group transplanted. She shared this quantity of crop with the members of her gumpu, though she kept a slightly larger proportion for herself. Peasant farmers each employed the same gumpu year after year. Thus, this economic relationship became strengthened by other economic ties, such as indebtedness, as well as by social links,

such as the rituals performed by the gumpu at a wedding in their employer's household. Before canal irrigation reached Wangala, most gumpus were composed of Untouchable women.

After 1930, when the newly irrigated land enabled Wangala farmers to extend their paddy cultivation on a large scale, the increased demand for gumpu labour led to the formation of a number of Peasant gumpus. These Peasant women were mostly widows or wives of the poorest Peasant farmers in the village, since it became a matter of prestige for a man to claim that his wife did no agricultural work at all. Thus, it was regarded as degrading for a Peasant woman to work on paid farm labour. Since irrigation, a similar relationship developed between the Peasant farmer and his Peasant gumpu as had existed prior to 1930 between him and his Untouchable gumpu. The Peasant gumpu was paid exactly the same fixed quantity of crop per acre of paddy transplanted as the Untouchable gumpu had received in the olden days; the poor Peasant women also became debtors of their Peasant employers; and they also have to perform certain functions in rituals held in their employers' households.

Thus, when about 20 years after canal irrigation had reached Wangala, the Agricultural Department tried to introduce the Japanese method of paddy transplanting to Wangala farmers, they found the gumpus reluctant to experiment with the more laborious way of spacing plants properly. First of all, farmers were not prepared to pay the gumpu more for transplanting the new way, because there was pressure from the more conservative farmers, who were against raising the fixed reward for the services of a group of women. Secondly, even if the more enterprising farmers had been prepared to offer a higher reward to their gumpus, they would have found that the group of women had developed a certain rhythm of work over the years which the women were reluctant to change; besides, no one was prepared to pay them for retraining.

Success of Japanese Method in Dalena

By contrast, Dalena farmers were able to experiment with the Japanese method of paddy cultivation, and the village headman, the Patel, even won the prize in 1953 for the best yield per acre of paddy in the area. Dalena lands remained 100 per cent dry even after irrigation had reached the area. Therefore, Dalena Peasant farmers tried to participate in the growing prosperity of the region by purchasing wet lands in neighbouring villages. This meant that they had no customary relationship with the group of women they employed for transplanting their paddy plants; nor were they bound by a customary reward in the form of a fixed quantity of crops. Thus, a Dalena farmer was able to make up a group of women, who worked for him, according to his own instructions and under his own supervision, and to whom he paid cash on a daily basis.

The adoption of the Japanese method of paddy cultivation enabled Dalena farmers to get a considerably higher output per acre of paddy than Wangala farmers managed to get by their traditional method. The difference in the attitude to the Japanese method of paddy cultivation displayed by Wangala and Dalena Peasant farmers is not the result of any difference in the basic approach to improved methods of farming, but is largely due to the operation of a customary system of reward in Wangala and the absence of such a system in Dalena. When I toured villages in a Community Project in S. India, I found that in each case where farmers had adopted the Japanese method of paddy cultivation they were not tied to a customary system of reward.

The Case of the Blacksmith

However, if it is in the interest of the worker, traditional economic relations between employers and their labour may break under the impact of economic growth. The case of Wangala's Blacksmith exemplifies this. According to tradition, the Blacksmith had a hereditary relationship with each of the Peasant households. He had to repair the Peasants' ploughs and tools; in return, he received an annual reward of a fixed quantity of paddy, millet and hay. This customary arrangement worked to the satisfaction of all concerned as long as the village economy remained stationary. It meant that in years of drought, when there was little blacksmith work to do, he was at least assured of a minimum of subsistence, whereas in years of good rains, when farmers would use their tools a lot and therefore there was much work for the blacksmith, farmers did not have to pay any more for his increased services.

Irrigation released Wangala farmers from their dependence on rainfall. Again, wet land requires more and deeper ploughing than dry land; farmers, therefore, had to replace their customary wooden ploughs with iron ones. These not only require more maintenance than wooden ploughs, but their repair is also a more skilled job. Thus, Wangala's Blacksmith found that he had to learn how to repair the new iron ploughs, and also he was kept busier by his Peasant masters than he had been prior to irrigation, but his reward remained stable. When he approached Peasant elders about an increase in his customary reward, they flatly refused it. They argued that the reward had been fixed by elders in the distant past and they saw no reason to increase the quantity of rice, millet and hay given to the Blacksmith annually by each Peasant household, since these items of crop still yielded the same satisfaction.

The Blacksmith then carefully considered the problem and came to the conclusion that he would be much better off if, instead of continuing his hereditary relationship with Peasant households in the village, he sought payment in cash for his services. When he suggested this to Wangala's Peasant elders, who formed the village panchayat, they

immediately opposed his suggestion. They argued that relations, which had lasted throughout past generations, could not be broken off with one stroke. Furthermore, it was in their own interest that the traditional arrangement be continued. They were, therefore, reluctant to break the customary agreement.

However, the Blacksmith, who is a very enterprising man, realised that the perpetuation of the traditional system would prevent him from branching out as a contractor, making doors and window frames for house-builders. He, therefore, continued to argue with the Peasant elders until they finally suggested that he should find some other Blacksmith prepared to carry on the traditional relations, while he himself would then be free to work as he liked. Wangala's Blacksmith managed to find a classificatory brother from another village, who, as the youngest in a large family of Blacksmiths, was pleased to be able to take over the position which Wangala's Blacksmith had found so burdensome. Now, Peasants ask the new Blacksmith to repair their wooden ploughs and other traditional tools, for which he receives his annual reward of a fixed quantity of rice, millet and hay; their recently acquired iron ploughs they take to Wangala's indigenous Blacksmith and they pay cash for his services. Wangala's native Blacksmith has even designed an improved iron plough and has started making it himself; he has also branched out into housebuilding and other activities only indirectly connected with his basic craft.

Analysis

These case histories indicate a number of theoretical propositions as well as practical suggestions.

Firstly, the traditional system of hereditary relations between Peasant masters and their servicing castes, as well as their Untouchable farm labour, was based on the operation of constant demand for, and supply of, services. Any change in either demand or supply threatens the traditional economic organization. Hereditary economic relations are, therefore, part of stationary economies and do not allow for economic expansion.

Secondly, the customary reward in kind is much less flexible than monetary rewards, as demand changes. Money wages are much more likely to vary under the pressure of increased demand or reduced supply, than the traditionally accepted annual reward in the form of a fixed quantity of rice, millet and hay. Thus, Wangala Peasants were reluctant to increase the annual reward in kind to the Blacksmith, when demand for his services increased. But, they are now prepared to pay him considerably more in cash for his services.

The basic idea underlying the constancy of rewards in kind appears to be the assumption that the inherent value of food remains unchanged, even if other conditions change; also that subsistence is the important element in the payment for services. If the appropriate reward for a day's farm labour used to be millet sufficient to feed a family of six for two days, then even if the monetary pay has increased more than the price of millet, Peasants see no reason why the quantity of the reward should be increased.

This basic idea about the rigidity of rewards in kind was expressed by the Peasant elders in their argument with the Blacksmith, when he requested an increase in his customary reward; they reasoned that the quantity of crops he received should still be able to feed him and his family. By contrast, money can be put to so many different uses that it is difficult to equate the daily wage with the quantity of any particular commodity. I would, therefore, argue that the greater flexibility of monetary wages, as compared with payment in kind, is based on the different uses to which the reward may be put. Food is thought to have a constant inherent nutritional value, whereas money can be put to all sorts of different uses. Cash wages for farm labour in Wangala have risen in line with equivalent wages paid in the regional economy of which Wangala is part, while rewards in kind have remained constant.

Thirdly, a customary system of rewards impedes economic growth by tying people to traditionally accepted ways of production. If a worker's pay remains constant, however much he improves his performance, he will have no incentive to produce more. Only if reward is directly correlated with effort can we expect workers to be keen to increase output. The case of Wangala's Blacksmith throws into relief the restraints a customary system of rewards puts on an enterprising man. Fortunately, for himself, and for the society at large, he was able to resolve his problem in a way acceptable to his Peasant employers and to himself. But the case of the gumpus, who refuse to transplant according to the Japanese method, shows that this is not always so. Thus, wherever a customary system of rewards exists, we can expect a reluctance on the part of the indigenous labour force to implement improved methods of production until a new method of payment has been devised.

Practical Implications

Whenever irrigation is introduced into a dry land area, farmers should be instructed in the most efficient ways of growing wet land crops right from the start of their venture into cash cropping. If Wangala farmers had been told about the Japanese method of paddy cultivation immediately their lands had become irrigated, the increased demand for labour would surely have resulted in an arrangement whereby farmers paid a daily cash wage to a number of women transplanting their

paddy plants. Such purely economic relationship did in fact develop between Dalena farmers and their female labourers, who transplant their crops on land situated in neighbouring villages. Customary economic relations are usually supported by other social links as well, and are, therefore, difficult to break.

From the point of view of the planner, who attempts to bring about an increase in the total output of an agricultural or crafts community where a customary system of reward is in operation, it would, therefore, be advisable to try to introduce a new product, which lies outside the scope of the customary economic organisation. For instance, Wangala farmers were advised to grow sugar cane after their lands had become irrigated. This was an entirely new crop to them, and no customary labour relations hampered their implementation of the new and most efficient methods to cultivate sugar cane. All labour employed in the process of cane cultivation is paid in cash rather than in kind; and wages are tied to the wage prevalent in the regional economy.

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Economic Development and Social Change in South India,
by T. S. Epstein; Manchester, England,
Manchester University Press, 1962, xvi and 353 pp.

This book presents a careful analysis of the sociological, psychological and economic factors involved in the traditional behavior patterns and the responses to changing circumstances of the two villages studied. Dr. Epstein finds that before irrigation reached the area, the two villages were almost identical in all aspects of their social and economic life. Irrigation has been the determining factor in the distinct roles the two villages have assumed in the regional economy. This is due to the basic economic difference between the uses of "wet" and "dry" land.

To Wangala, irrigation brought the opportunity of growing cash crops. The villagers were able to improve their farming techniques, to produce more, and in that way to become more prosperous. In Dalena, which had depended largely on subsistence farming, the land remained "dry" and the same opportunities did not offer themselves. The irrigation scheme did, nevertheless, help Dalena. The more prosperous farmers bought land in neighbouring "wet" areas to grow cash crops, or developed commercial projects, such as running a flour mill. Poorer peasants offered themselves to the Public Works Department as labourers. These men travelled widely in the region, helping to build roads and canals. Their work caused them to mix with people of different social and economic backgrounds and consequently their own outlook was broadened.

In the "wet" village, economic growth could, and in fact did, occur with little, if any, change in traditional attitudes and relationships. In contrast, the "dry" village in order also to enjoy economic growth had to embark on new economic activities which induced changes in traditional attitudes and relationships. In turn, these broadened the villagers' horizons and stimulated still further new economic activities and development -- a process which also made possible the beginnings of political change.

In commenting in the foreword to the book on the lessons of the contrasting experiences of the two villages, W. Arthur Lewis concludes that the economic incentive is a "powerful solvent" which "dissolves what stands in its way, but nothing more. In one of the villages, where the new opportunities did not conflict with existing institutions, there was virtually no institutional change; in the other village, changes were widespread, but only such changes occurred as were directly linked with new economic opportunities....How much is changed depends partly on how much is incompatible, and partly on how closely interrelated the various [traditional] institutions are. We do not know enough about these processes. Our main hope of learning more rests upon... studies of the kind which Mrs. Epstein has pioneered with such distinction."

A SUGGESTION FOR ACCELERATING RURAL MODERNIZATION

Walt W. Rostow

/From "The Nationalization of Take-Off," The Developmental Revolution in the Middle East; Washington, D. C., the Middle East Institute, 1963, US$4.00./

/In this paper, the well-known author of The Stages of Economic Growth turns his attention to the need to make the process of development a truly nation-wide effort if the take-off into sustained economic growth is to occur. After explaining the adverse consequences of neglecting the development of rural areas and backward regions in a country, Dr. Rostow makes some suggestions for improving the incentives and the means for modernization on the part of the local people involved.

This paper was read at the seventeenth annual conference of the Middle East Institute held in conjunction with Georgetown University in Washington, D. C., on May 2-4, 1963. The Middle East Institute is a private, nonprofit organization founded in 1946 to foster interest in and an understanding of the history, culture, and political and economic affairs of the countries of the Middle East. In addition to publishing the Middle East Journal and various books and monographs, the Institute sponsors lectures, conferences and exhibits, carries on a scholarship and awards program, maintains a library, and undertakes research -- all on Middle East subjects.

Excerpts from the paper begin on the next page.

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Edited by William R. Polk, the papers prepared for the 1963 annual conference have just been published by the Institute under the title The Developmental Revolution in the Middle East. Four groups of papers deal with social and political aspects of development; the organization and administration of the development process; mobilizing the required material resources and human skills; and the financing of development efforts. In addition to the following excerpts from Dr. Rostow's paper, portions of another paper presented at the conference and reprinted in the book will be found on pages 1 through 7 of this issue.]

If one attempts to generalize the situation in most of the developing countries, one can see quite remarkable enclaves of industrial and modern urban activity coincident with stagnation or very slow progress in the countryside. Rural development is proving, however, not merely a social duty to the less advantaged portions of the population, but a fundamental condition for the maintenance of a high rate of development for the society as a whole, including especially its industrial development.

There are, in fact, three distinct major roles that agriculture must play in the early stages of the development process. First, obviously, agriculture must supply the food necessary to meet the inevitable rise in population, without yielding either starvation or a depletion of foreign exchange to buy food at the expense of purposes essential to industrial growth. This requirement is heightened by the typically disproportionate rise in urban populations which demand either an increased transfer from the countryside or the acquisition of food from abroad. Second, agricultural expansion is required as working capital for non-agricultural development: to generate raw materials for industry or to earn foreign exchange. Finally, a rise in agricultural incomes can provide important direct stimulus to other aspects of development: it can provide expanded markets for chemical fertilizers, agricultural equipment, and manufactured consumers goods, and it can provide a critically important source of increased tax revenues.

In parts of Latin America, for example, industrialization is damped because of a lack of a sufficiently wide popular market. An excessive amount of industry is producing goods for the relatively small urban middle class; consequently industry works with idle capacity, prices and tariffs are excessively high, and profits are not ploughed back into industry. At the same time the potentialities of modern technology and agriculture are not being rapidly diffused, and many rural regions have not moved away from the fatalism and low productivity methods of traditional life. With a melodramatic gap between rural and urban life,

the more enterprising flock from the countryside to the bright lights and cinemas of the cities, where the rate of industrial growth is not sufficient to absorb them fully in regular employment, while they impose on the public authorities heavy claims for social overhead capital (housing, schools, etc.) which inadequate budgets cannot fully meet, in part, because tax systems are ineffective, in part because income is not rising fast enough.

Further, since the potentialities of modern agriculture are not being applied, some of these countries are unnecessarily sliding into dependence on imported food, and they are not exploiting the possibilities of agricultural products as a source of commercial crops for industry or for export. Finally, as an Egyptian friend pointed out to me, the lack of industry working to a mass market limits industrial productivity and prevents the development of manufactured or processed export products which can compete in international markets and relieve the dependence on exports of traditional products with a limited future in world trade. It is no accident that the classic initial manufactured product of a developing area, capable of marketing abroad, has been cotton textiles, where generally a mass domestic market can be developed and industrial efficiency attained.

In the broadest sense, what I am asserting is that the present state of a good part of the underdeveloped world requires that we take seriously two of the oldest propositions in economics, to be found, for example, in Adam Smith's Wealth of Nations which, read afresh, is a relevant handbook for a developing nation, not merely a free trade pamphlet. One of these propositions is that agricultural output is, in the widest sense, the basic working capital of development of a nation in its early stages of growth. The other proposition is that industrialization depends for its profit and momentum on a progressive widening of the market, with the specialization and efficiency that widening permits. Although various schemes for creating international common markets among developing nations commend themselves on various grounds -- and deserve encouragement and support -- I suspect that the most important task in most developing nations is to learn how to widen the domestic market.

In emphasizing the critical importance in the next stage of development of the agricultural sector, I am, of course, saying nothing very new. The role of agriculture in the development process has been emphasized by a good many of those concerned with development. Interesting and useful efforts have gone forward in many parts of the developing world, designed to accelerate the pace at which modern science and technology are brought effectively into both the production methods of rural life and into its standards of welfare. The brute fact is, however, that the diffusion of modern methods and attitudes in rural life is going too slowly for the good of the developing nations; and it may be useful for those concerned to attempt to take stock of what we have

learned in various parts of the world and to consider explicity how the diffusion process, now rather laboriously and expensively proceeding, can be accelerated. It is a fair question to ask, for example, whether the terms of trade -- the relative prices of urban and rural goods -- are such as to stimulate the kind of agricultural development required to give momentum to the national development process as a whole. Beyond this exhortation for a critical review of our experience and a search for methods for accelerating rural modernization, I have one limited suggestion of my own to put forward.

It struck me some time ago that in certain of the developing areas it might be helpful to encourage a purposeful effort to manufacture locally and to market in the rural areas on a more effective basis both cheap agricultural equipment and the kinds of consumers goods likely to constitute, at rural levels of income, an incentive to accept and to apply modern methods of agricultural productivity. This kind of effort could make a contribution to all four of the structural weaknesses to be found in many developing nations which I have described:

- First, it could put the private industrial sector into the production and marketing of goods on a mass market basis, even in poor countries. I have in mind not merely textiles but canvas shoes, flashlights, household equipment, transistor radios, and the classic first phase durable consumers goods -- bicycles and sewing machines, as well as pails, hand tools, fertilizers, and other basic agricultural equipment.

- Second, these goods, if cheaply and effectively brought into the rural areas, could provide an important incentive to rural families to increase output as well as a part of the means to do so.

- Third, by bringing something of modern life to the countryside and permitting rural areas to share at least some of the fruits of the more modern sectors of a developing society, it might help damp the excessive flow from the countryside to the urban slums. An Indian friend recently suggested that mobile film projection units in rural areas could significantly reduce the incentive of villagers to move to the cities.

- And, fourth, by developing efficient production on the basis of mass markets of goods of this kind, additional items for export could be generated.

In short, I am proposing that we consider seriously whether the experience pioneered in the United States by the mail order houses, pioneered abroad in urban areas by Sears, Roebuck & Co., and in rural areas

by the Singer Sewing Machine Company, might have a real relevance to the structural problems now confronted in the underdeveloped areas.

I am, of course, conscious of the care with which any lesson of U.S. development experience should be applied in other societies with problems of a different kind. It is clear, for example, that there are very few developing areas where one could actually use the mail order catalogue, given the state of literacy and the postal services. But I have always felt that of all our experiences in U.S. development there were three which might prove of quite general significance: the nineteenth century role of the Army Corps of Engineers in what is now popularly called civic action; the role of the Federal government in stimulating the development of schools of agriculture, mining, and industrial technology under the Morrill Act, passed a century ago; and the role of the mail order houses which, along with the county agents, constituted a powerful complementary team imparting great vitality to the American farming communities.

What is required, essentially, I would say on the basis of a preliminary examination of the practical problems is that some foreign enterprise experienced in mass production and marketing, link closely with local manufacturers and distributors; and arrange for appropriate market surveys and new methods of distribution -- probably mobile stores, transported in trucks. Arrangements must be made for a maximum volume of local manufacture; and financing must be organized in such a way as to provide something like three to five years for the concept to take hold and profits to be made on a pure commercial basis.

This proposal is, I suspect, more than a gimmick. It is rooted in the most fundamental things we know about the way in which human action changes. Action represents a choice among perceived, realistic alternatives. In many tradition-bound parts of the underdeveloped areas the possibility of acquiring modern consumers goods is not a realistic choice, given the lack of economical methods of distribution where, indeed, methods of distribution exist at all. Nor do peasants in many areas perceive it as a realistic possibility for them to change their methods of production. The objective would be to dramatize both the possibilities of new methods and to widen the range of choice that rural families perceive open to them.

Our task is to change action -- what people do in rural areas -- and this seems one tool for achieving that objective.

But, evidently, this proposal is not a sufficient answer to the basic structural problem I have tried to define today. Moreover, in judging whether it is practical in particular cases, it will be necessary to assess whether the resources exist within the society to generate this kind of production and commerce and to weigh what economists call

the opportunity cost of doing so. In addition, of course, we must press on with rural development on a wide basis, accumulating all the lessons that we can acquire from what is now almost a generation's experience in the development business.

My basic point is, then, that the time is past when we can afford to regard industrial and agricultural development as simply competing for scarce capital resources. In many parts of the developing world, the initial basis for take-off has been established in industry and in urban areas, but the maintenance of that momentum requires that the diffusion of modern technology, with all that it carries with it, be extended on a national basis and especially to the lagging rural areas which are, at once, a relatively untapped source of food, industrial working capital, foreign exchange earning capacity, industrial markets, and taxes.

EDUCATIONAL PLANNING

The importance of education as one of the key factors in development is now generally recognized, and increasing attention has been devoted in recent years to analyzing the specific ways in which the two are related. The relationship is highly complex, involving political, economic, cultural, technical, administrative, pedagogical and psychological dimensions or levels. For those concerned with economic development, the economic aspect of education is of primary interest, but policy decisions in this field must take account of the goals of the educational effort and the environment in which it is carried on, as well as its costs. These different aspects are most effectively related to one another by integrating the planning of education into the larger process of development planning. The three papers presented in this section analyze the main problems of educational planning within the context of general development needs and limitations. They are followed by a description of the recently established International Institute for Educational Planning and by a brief review of some recent publications on educational planning and development.

EDUCATION AND ECONOMIC DEVELOPMENT

W. Arthur Lewis

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This is a reprint of most of the article.

Poor countries cannot afford to pay for as much education as richer countries. They have therefore to establish priorities in terms both of quantity and of quality.

The requirements of economic development help in setting priorities, but they are not overriding. Education was not invented in order to enable men to produce more goods and services. The purpose of education is to enable men to understand better the world in which they live, so that they may more fully express their potential capacities, whether spiritual, intellectual or material. Indeed, through the centuries the traditional attitude of "practical" men towards education has been that it unfits its recipients for useful work. Certainly, most people would agree that education is desirable even if it contributed nothing to material output.

From the standpoint of economic development, one may distinguish between types of education which increase productive capacity and types which do not. Teaching an African cook to read may increase his enjoyment of life,

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but will not necessarily make him a better cook. Education of the former kind I have called "investment education," while the latter kind is called "consumption education." From the standpoint of economic development, investment education has a high priority, but consumption education is on a par with other forms of consumption. The money spent on teaching cooks to read might equally be spent on giving them pure water supplies, or radios, or better housing, and must therefore compete in the context of all other possible uses of resources. In this perspective, the needs of economic development help to determine the minimum amount which must be spent on education. How much to spend above this minimum depends on how rich the society is, and on competing claims. This article is confined to seeking to discover the nature and limits of investment education.

Absorptive Capacity

It is fundamental to this approach that the amount of education which "pays for itself" in a poor country is limited. Some confusion has been caused by applying to these countries the conclusions of statisticians who try to measure the yield of education in rich countries, and who emerge with such conclusions as that the yield of investment in humans exceeds the yield of investment in physical resources. In the first place, investment in humans is not to be equated with education, as normally conceived in institutional terms. Human capacity is improved by education, public health, research, invention, institutional change, and better organization of human affairs, whether in business or in private or public life. To attribute all improvements in productivity to education would therefore be more than a little naive. Secondly, rich countries have a greater capacity to absorb the products of schools than have poor countries; so even if we could isolate the average yield of various types of education in rich countries, this would throw no light on the marginal yield of similar types in poor countries.

An over-supply of educated persons is a familiar feature in poor countries: e.g., the over-supply of university graduates in India in the 1930's, or the over-supply of primary school graduates in some West African countries today. An education system may very easily produce more educated people than the economic system can currently absorb in the types of job or at the rates of pay which the educated expect. This is a short-period phenomenon. In the long run, the educated learn to expect different jobs and to accept lower rates of pay. But the long run may be very long, and the jobs accepted may gain very little from the education received.

Part of the difficulty of absorption is because the education system produces the wrong kinds of education. The balance between primary, secondary and higher education; between general and vocational studies; between humanities and sciences; or between institutional and in-service

training -- all these need to be blended in the right proportions if education is to be a help rather than a hindrance to economic development. Because the pattern of education was formed many centuries before the modern technological revolution occurred, most education systems give too little weight to the natural sciences and technology, whether at primary, secondary or higher levels, so that a surfeit of persons trained in literary studies, side-by-side with an acute shortage of persons trained in scientific, biological or mechanical arts, is a feature of several countries. Careful survey and planning are needed if the education system is to produce the balance of skills which the community exactly needs at its particular stage of development.

Nevertheless, the problem is not wholly or even mainly one of balance. The main limitation on the absorption of the educated in poor countries is their high cost, relative to average national output per head. In a country where most people are illiterate, the primary school graduate, whose only skills are reading and writing, commands a wage much higher than a farmer's income. A university graduate who, in a rich country, commences at a salary about equal to a miner's wage, may in a poor country receive five times a miner's wage. In consequence all production or provision of services which depends on using educated people is much more expensive, in relation to national income, in poor than in rich countries. The poor countries may need the educated more than the rich, but they can even less afford to pay for or absorb large numbers of them. In the long run, the situation adjusts itself because the premium on education diminishes as the number of the educated increases. Either the educated have to accept less, or else they are unable to resist the pressures which cause the wages of the less educated to rise faster than their own.

The situation is particularly acute in Africa, where senior administrative salaries have been considerably above similar salaries in Europe, in order to attract European recruits. In consequence, the range of personal incomes is wider than anywhere else in the world; much wider than in Asia, where senior salaries are only about half of their European equivalents. Now that Africans are taking over the top administrative jobs, they are asking, in the name of the sacred principle of non-discrimination, to be paid the same salaries as Europeans, as if it were necessary to spend 50 per cent more on them to attract them away from positions in Europe. Many African politicians have condemned this ridiculous proposition, which handicaps development by making it unnecessarily expensive and places an unnecessary burden on the mass of the population. The ultimate outcome cannot be in doubt, but much passion will be expended on the way.

As the premium on education falls, the market for the educated may widen enormously. Jobs which were previously done by people with less education are now done by people with more education. The educated lower

their sights, and employers raise their requirements. As a result of this process an economy can ultimately absorb any number of educated people. It follows that it is erroneous, when making a survey of the need for skilled manpower, to confine one's calculations to the numbers that could be absorbed at current prices. One ought to produce more educated people than can be absorbed at current prices, because the alteration in current prices which this brings about is a necessary part of the process of economic development. On the other hand, this adjustment is painful, and fraught with political dangers. Like all social processes, it requires time for relative smoothness.

Primary Education

To give eight years of primary education to every child would cost a much larger percentage of the national income in Nigeria, for example, than it would in the United States. The main reason for this wide difference is that, while the average salary of a primary school teacher is less than one-and-a-half times the per capita national income in the United States, a primary school teacher gets seven times the per capita national income in Nigeria. If the cost of education is to be kept within taxable capacity, widespread provision of education belongs to a stage of development where the premium on education has already diminished to reasonable proportions.

Apart from its cost, universal primary education, if attained with speed, raises problems of absorption. In a community where only 20 per cent of children enter primary school, and only 10 per cent finish the course, the demand for primary school graduates is such that they command considerable salaries in white-collar jobs. If the number entering primary school is pushed up from 20 to 80 per cent of the age group within ten years, as has happened in some West African countries, the result is frustration. The children pouring out of the primary schools look to the town for clerical jobs, and are disappointed when they do not find employment. The towns fill up with discontented youths, faster than houses, jobs, water supplies, or other amenities can be provided, and urban slums and delinquents multiply while the countryside is starved of young talent.

The situation is sometimes blamed on the failure of rural schools to adapt their curricula in such a way as to orientate rural children to rural life. This, however, is only part of the problem. The primary school leaver's expectations derive not from the curriculum but from the status which his immediate predecessors have enjoyed. In a developed economy, the wage of an unskilled labourer (which is all that primary education produces) is about one-third of the average income per employed person; but a primary school leaver in Africa expects about twice the average income per employed person. Obviously, if literacy became universal, it would be impossible to pay every literate person twice the average income. If the primary school leaver is to get twice the average

income, he can fit only into those parts of the economy which yield twice the average income, and the rate of absorption of primary school leavers then depends on the rate at which these modernized sectors of the economy are expanding. He will fit into a revolutionized agriculture, with modern practices and equipment, but it is useless to expect him to fit into the three-acres-and-a-hoe farming of his father. Any good primary school will widen a child's horizon and create expectations which primitive farming cannot fulfil. So even if rural schools concentrate on rural life, their products are bound to suffer frustration unless the whole social fabric of agriculture is being modernized at the same time.

Cutting the cost of education by reducing the length of the primary course makes absorption still more difficult. Several African countries have now adopted a six-year primary course. This means that hordes of youngsters are turned on to the labour market, aged twelve, with high expectations and low skills. In part this is a borrowing from British, French or American systems, where universal six-year primary education is followed by universal schooling of some secondary type for at least a further three years. In the absence of this secondary stage, African countries would do better, from the standpoint of absorption into the economy, if they gave primary education to fewer children for a longer period of, say, eight or nine years.

The limited absorptive capacity of most West African economies today -- especially owing to the backwardness of agriculture -- makes frustration and dislocation inevitable if more than 50 per cent of children enter school. This, coupled with the high cost due to the high ratio of teachers' salaries to average national income, and with the time it takes to train large numbers of teachers properly, has taught some African countries to proceed with caution; to set the goal of universal schooling twenty years ahead or more, rather than the ten years ahead or less associated with the first flush of independence movements. Such a decision is regarded as highly controversial by those for whom literacy is a universal human right irrespective of cost, or who feel that it is better to be taught by untrained teachers than not to be taught at all, or who see in the frustrations generated by the incapacity of the current social fabric to absorb, the very stuff which will promote needed change rapidly. On the other hand, considering that in most African territories less than 25 per cent of children aged six to fourteen are in school, a goal of 50 per cent within ten years may be held to constitute revolutionary progress.

Secondary Education

If the poorer countries tend to expand primary education too rapidly, their failure to make adequate provision for secondary education is a major handicap to economic development.

The products of secondary schools are the officers and non-commissioned officers of an economic and social system. A small percentage goes on to university education, but the numbers required from the university are so small that the average country of up to five million inhabitants could manage tolerably well without a university of its own. Absence of secondary schools, however, is an enormous handicap. These schools supply the persons who with one or two more years of training (in institutions or on the job) become technologists, secretaries, nurses, school-teachers, bookkeepers, clerks, civil servants, agricultural assistants and supervisory workers of various kinds. The middle and upper ranks of business consist almost entirely of secondary school products, and these products are also the backbone of public administration. To have to import large numbers of people at this level, paying them in salaries and allowances two to three times more than what they could get in rich countries, is a blow to most development schemes. In industry, it makes production costs absurdly high. In public administration, it puts many desirable schemes -- such as agricultural extension or nursing services -- beyond the range of taxable capacity. While, as for democratic social life, the absence of a good sprinkling of educated people, serving voluntarily in public agencies (local government, co-operative societies, etc.) and acting as an informed public opinion, exposes society too easily to deception and corruption.

When one compares the countries which have become independent since the second world war, there is a clear difference between those whose business and public affairs are still run mainly by expatriates, under ministers of the country, and those which are really competent to run their affairs at all levels, because their secondary schools have supplied streams of people for intermediate and higher posts in business and administration.

The proportion of the population needed in secondary schools is a function of the level of development. If we include nurses, secretaries and school-teachers, the proportion of the adult population holding jobs for which a secondary grammar school education is now normally considered an appropriate preliminary is about 5 per cent in Jamaica. This is higher than the proportion who have actually completed secondary education. It represents the number of jobs for which a secondary education would now be expected. In African countries, the current proportion is very much smaller, because the subsistence sector is so much greater. The number who have received secondary education is only a fraction of 1 per cent, while the number holding jobs for which a secondary education is considered appropriate is probably between 1 and 2 per cent.

The obstacle to providing secondary education in West Africa is not so much recurrent cost as capital cost. Recurrent cost is abnormal, due to the high cost of teachers relative to per capita income. Nevertheless, the fantastic burden is the cost of building schools. One can build a

good secondary school in England for £50,000; but the cost of a school for a similar number of pupils in Ghana may be £250,000. This is because many West Africans have persuaded themselves that only boarding schools are appropriate to Africa. The argument runs as follows. 'To get a fully specialized staff, a school must have twenty teachers. Therefore it must have 500 pupils. Therefore, assuming 5 per cent schooling, it must draw from a population of 70,000. Since very few African towns have a population exceeding 10,000, it follows that most African towns cannot support a day secondary school. Therefore the solution has to be boarding schools.' A boarding school, complete with dormitories and staff houses, costs £250,000. The argument can be attacked at either end. Must a secondary school have twenty teachers? If, instead, it started with only six teachers, one could build a series of day schools in three times as many small towns. Even when the school has to be large, the British solution is boarding, but the American solution is the school bus, which is hardly known in Africa. Some financial sense is badly needed in planning secondary schools in Africa. It is obviously absurd to take the line that Africa's way to secondary education must be through building "Etons" for the majority of African children.

Grammar schools are not by any means the only, or in numbers even the chief, form of secondary education. If one follows some authorities in reserving the term "primary" for education up to age twelve, and in using the term "secondary" for all education between twelve and eighteen, then some secondary education should be provided for all children who complete primary education, since such children are not ready for the labour market at twelve. Children who do not go on to grammar school pass into secondary schools with a practical bias, known as "middle," "intermediate," "central," or "modern secondary," or into the practical streams of "comprehensive" schools, or again, in the French system, into the "first cycle" of secondary schooling. Except in the United States of America, the great majority of children end their schooling here.

A few of these children are ready, at about age fifteen, to pass into vocational schools, for full-time technical training. It is hard to judge how large this group should be. People possessing the skills taught in such schools -- building, metal working, engineering -- comprise from 2 to 8 per cent of the working population in less developed countries, but it does not follow that 8 per cent of children should enter such schools. The traditional training for these trades is a system of apprenticeship. In the United States of America, where nearly 70 per cent of children are kept in school until age seventeen, vocational schooling has had to be a substitute for on-the-job training up to that age. Elsewhere, it is probably cheaper and more effective to rely on apprenticeship; to put not more than 2 per cent of the age cohort through full-time courses, and to arrange part-time courses for the rest.

Actually, in poor countries half the age cohort should enter agriculture. Primary and intermediate schools in rural areas have an agricultural bias, but they see the child through at most to age fifteen. Governments provide farm schools to train agricultural assistants for government service, but very few provide courses for students who wish to farm. Probably the ideal is for the child to start farming at fifteen, and then around age eighteen to go to a practical farm school for about six months to observe modern techniques. It is true that agricultural extension can be done on farms by peripatetic agricultural assistants, but this is not an adequate substitute for an intensive course for bright young farmers, any more than "training-within-industry" is a complete substitute for vocational schools.

When the grammar school children leave school, between sixteen and eighteen, they are ready for specialized training. The great majority will go straight into employment, and receive on-the-job training as clerks or technical assistants. Others need preliminary training of, say, from six months upwards to become secretaries, medical technicians, nurses, agricultural assistants, primary school teachers, junior engineers, or as the case may be.

Very few of the poorer countries make adequate provision for this specialized but sub-professional training. This is because the supply of educational facilities is not properly planned in relation to the needs of economic and social development. The making of "manpower surveys" is spreading as a remedy for this defect. The technique of making such surveys is still rudimentary. Asking employers how many people they intend, or would like, to employ in various categories yields interesting answers, but these answers do not necessarily add up to absorptive capacity. It should be possible, from examining the manpower statistics of different countries in different stages of development, to produce some coefficients which would act as a check on the results yielded by questionnaires. But basic work of this kind is only just starting in the universities. Meanwhile it is clear that even rudimentary manpower surveys help governments to appreciate the need for specialized training facilities for people between ages sixteen and twenty, so greater use of such surveys is certainly to be commended.

Adult Education

The quickest way to increase productivity in the less developed countries is to train the adults who are already on the job. Education for children is fine, but its potential contribution to output over ten years is small compared with the potential contribution of efforts devoted to improving adult skills.

This field is almost wholly neglected. In the government hierarchy, it belongs not to the ministry of education but to the ministries of trade, agriculture, mining, health, communications, community development

and others. Most of these ministries are too busy making new regulations and processing forms, to regard adult education as a major part of their functions.

Yet there is ample testimony to what adult education can achieve, whether in the form of training-within-industry, evening classes, or sandwich courses in urban centres; or in the form of agricultural extension, health programmes, or community development in rural areas.

Experience shows that the secret of success is to make adult education into a popular mass movement. There is not much point in offering adult classes if adults do not wish to attend classes. The Danish folk movement, or the Russian literacy campaign or any other adult education movement has been successful in so far as it has stirred the imaginations of the people, and created a mass desire to learn. Some popular African leaders, such as M. Sékou-Touré of Guinea, understand this very well, and are therefore likely to succeed in getting adult education, in one form or another, to contribute substantially to economic and social development. Elsewhere, adult education languishes as much for want of understanding as it does for lack of funds.

University Education

The number of university graduates who can be absorbed at low levels of economic development is relatively small. The proportion of jobs in Jamaica for which a university education is now considered normal corresponds only to about five per thousand of adult population; and the corresponding figure for Nigeria, according to Professor Harbison's count (Investment in Education, Lagos, 1960), is only around one per thousand of adult population.

Most of the new African countries do not at present have enough students to justify building a university; it is cheaper for them to send their students abroad. In a country with a population of two million, putting, say, 0.5 per cent of the age cohort into university, the total student number comes only to 700. This is quite uneconomic for a university with the broad range of faculties which is usually sought. A liberal arts school of the American type is economic with 500 students, but to be economic a British-type combination of faculties of arts, science and social science needs about 1,200 students; medicine needs 300 students, and agriculture and engineering need 200 each. This makes about 2,000 students in round figures. All the universities founded in Africa since the war have been costing from three to five times as much per student as it costs to run a university in Europe.

In so far as these exorbitant costs are due to abnormally high staff/student ratios, ranging upwards from one to three, as against one to eight in Britain, or one to twenty in liberal arts colleges, they are temporary, and will pass as student numbers expand. But this is by

no means the only cause. In British universities, the average cost per teacher is about £4,000 a year. In universities in British tropical Africa, the cost per teacher exceeds £6,500 a year. This is mainly because the teachers, two-thirds of whom are recruited in Britain, have to be paid higher salaries and given better allowances than they get in Britain. Even the African teachers are paid about £1,000 a year more than the African civil servants of equivalent education. On top of this, these universities are not sited in towns, where they could use public facilities (and contribute the maximum amount to public life) but have in every case been sited away from towns, where they have to maintain their own police, telephone exchange, electric power station, sewerage disposal, transport and other services, and have therefore to carry a service organization about five times as large as is carried by an urban university. For the same reason, the capital cost, in terms of student hostels and houses for the teaching staff, is abnormally high, largely owing, no doubt, to the extravagant housing standards which have been traditional for Europeans in tropical Africa.

As it happens, the capital cost of African universities seems likely to be met mostly by grants from the treasuries of Britain, France and the United States; but the recurrent cost is an immense burden, except to the extent that it is met by France in the former French territories. (Costs in the West Indies are similarly extremely high.) The situation is very different in India, or in Egypt, where university lecturers are recruited locally, and cost no more than other nationals of equivalent education.

However, even if the cost per student were no higher in Africa than in Britain, the cost to Africa of training a student in Africa would still exceed the cost to Africa of training him in Britain. This is because an African student in Britain pays only a small fraction of the cost of his training; the rest is met by the British tax-payer's grant to the universities. So long as tuition fees in Europe are negligible, it will always cost an African economy more to train students at home than it would to send them to similar universities in Europe. (One can send a student for £600 a year, whereas even with utmost economy the tuition and maintenance cost at a British-type African university will not fall below £1,000 a year.) It is not possible for a large country to place all its students overseas, but this is feasible for a small country, especially while the percentage of students for university training is still small. From the economic point of view, therefore, one must ask: why should a small African country (or the West Indies) have its own university, when two, three or four times as many students could be sent abroad for the same money?

The chief reason why it is worth while, from the economic point of view, to have a university at home, even though it costs more than sending students abroad, is that the function of a university is not confined to teaching students. If it were merely a question of teaching,

there could be no doubt about the answer. For though one can argue on either side in terms of the atmosphere of a home university, or the suitability of its curricula, or the advantages of foreign travel, the net result of such argument fades into insignificance beside the possibility of sending five students abroad for every three who might be trained at home (assuming the most economical arrangements). Only if foreign aid provides all the capital and a third of the running expenditure can a purely teaching university justify itself on economic grounds.

Apart from teaching, a university contributes to its community through the participation of its teachers in the life of the country, and through its research into local problems.

A poor country has very few educated people. To have in its midst a body of one or two hundred first-class intellects can make an enormous difference to the quality of its cultural, social, political and business life. This, however, depends on participation. If the university is built in the bush, and isolates itself as a self-contained community, it misses a tremendous opportunity of service. Countries rich in income and talent can afford to have their universities in the countryside. But the universities of poor countries should be in the heart of urban centres, where they can do most good. The opportunities for participation are immense: membership of public boards and committees; contributions to professional societies; guidance of teacher-training colleges; availability for consultation by administrators and business people; membership of musical, dramatic, artistic and other groups; journalism and radio work; adult education classes. If the staff of the university is not giving active leadership in all these fields, it would be cheaper to close the place down, unless it is also doing excellent research.

A country needs to have some research institutions, whether it has a university or not. If the same people do teaching and research, only a part of the university cost should be charged against teaching. The question therefore arises whether teaching and research should be combined.

The British theory that every university must regard itself as primarily a research institute with students, doubles the cost per student. A research institute type of university has a staff/student ratio of one to ten (excluding medicine) with a maximum teaching load of ten hours a week; whereas a university where the staff are not expected to do research can have a staff/student ratio of one to twenty, with a teaching load of twenty hours a week. A university which adopts the British ratios must insist that any staff member who does not make significant research contributions must be fired. For a poor country in Africa or elsewhere to load itself up with the expense of a British-type university, and accept from its teachers that they should be judged primarily by research results, would be folly of a high order.

One can argue persuasively that the first university in any poor country should be of the research institute type, provided that the research test is rigidly applied to its staff. However, as student numbers expand, it becomes progressively harder to justify the multiplication of these expensive structures in poor countries. The great majority of those entering a university are not research students, and do not need to be brought to the frontiers of knowledge. What they need is a broad education, to fit them for administration, commerce, or teaching up to fifth-form level. For this, the American conception of a liberal arts degree (which combines science, humanities and social studies) is much more relevant than the British Honours degree. There should be at least one university engaging in high quality research, and offering high quality Honours degrees, on the basis of high entrance standards. But, as numbers expand, the majority should be diverted into liberal arts colleges.

Here the teacher/student ratio can be halved, and since one does not need top-flight researchers, teacher salaries can be more in line with salaries in the public services. If in addition most of the students live at home, one can get the cost of a student down to perhaps two-thirds of what it would cost to send a student abroad. To mitigate the prejudice which exists in British circles against such conceptions, one can add that, as in the United States, any graduate of one of these liberal arts colleges who displayed special talents could go on to the major university for postgraduate training.

Similar principles could be applied to professional training, but with less justification. In every profession there are at least three layers; top-flight researchers, professionals and sub-professionals. In agriculture, there are specialists, general agronomists, and agricultural assistants trained in farm schools. Medicine has specialists, general practitioners, and a third layer of nurses, dispensing chemists and medical technologists. Engineering has its scientists, its professional engineers, and its third layer of technologists.

The proportions in which these layers are combined are different in rich and poor countries. The rich countries can afford to spend much more proportionately on research than the poor countries, so the need for top-flight scientists and specialists is proportionately greater. Such men also need long periods of stimulating work in first-class laboratories abroad, so the universities of poor countries should not try to put too much of their resources into superior training of first-class men. The bulk of their work must be the training of the second layer.

The ratio of numbers in the second to numbers in the third layer is also smaller than in rich countries. Because of the high cost of engineers, doctors and agronomists, one employs fewer of these and more technologists, nurses and agricultural assistants, who therefore carry

greater responsibilities. This is reflected in the ratio of jobs for which a degree is currently considered necessary to jobs for which a grammar school education is considered appropriate, which is more like one to ten in poor countries, compared with one to five in Europe.

Because of the high cost of training graduates, it is sometimes suggested that the universities in poor countries should lower the standards of professional training, on the grounds that it is better to have, say, a hundred three-quarter trained doctors, who can be spread over the countryside, rather than seventy well-trained doctors, leaving 30 per cent of the population without a doctor. This has been done in some places. The alternative policy is to mass-produce not the second layer, but the third, and in the process even to up-grade the training of the third layer. One then floods the countryside not with low-grade dentists, but with high-grade dental assistants; not with poorly trained agronomists, but with well-trained agricultural assistants. If this policy is adopted, the corollary is to up-grade the training not only of the third layer, but also of the second layer. For the second-layer professional now has many more third-layer people working under him; he assigns to them more of the routine work, and concentrates to a greater extent on the more difficult tasks. His administrative responsibilities are also greater. From this it follows that he needs an even sounder training than his professional colleague in Europe. It is indeed quite arguable that, what with language difficulties, greater administrative responsibilities, and the need to work in isolation from specialist advice and laboratory analysis, professionals require at least one more year of training in poor countries than they do in rich countries.

I have written at some length on university education because the economic aspects of this subject are very different in poor countries from what they are in rich countries, and are nevertheless so seldom considered. It tends to be assumed that what is right in Britain must also be right in Nyasaland. Even in Britain, university people are not good at seeing themselves in their social context; most of the best of them are too busy teaching and doing research to worry about such an abstraction as the social and economic context of a university, and when such people arrive in the tropics, it is easier for them to continue old patterns than to invent new ones. The subject is fraught with difficulty and merits widespread informed discussion.

ECONOMIC AND SOCIAL ASPECTS OF THE PLANNING OF EDUCATION

H. M. Phillips

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These are excerpts from the original article.

The need for planning arises from two basic reasons. First, that education is the main means in the hands of a society for influencing its future value system and its stock of knowledge and skills. Economic and social development requires certain basic values and attitudes, and an ever-increasing application of skills both productive and social. The extent to which these requirements are met depends greatly on the manner in which the educational system fulfils its role. Second, the operation of the educational system utilizes a large proportion of a country's existing stock of educated talent and, in developing countries, a major part of public expenditure. Since both the use of talent and the distribution of public expenditure are major problems of resource allocation, questions concerning the size of the educational system, as well as its nature, enter into the heart of over-all economic and social planning.

Within these two broad considerations, there are a number of allied facts with important implications which are touchstones on which planning measures have to be tested. The first is that in its task of forming future values and skills, the educational system is functionally interlocked with its socio-economic environment through such factors as job opportunities, the role of the

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teacher in the community and the influence of the community on the teacher. Thus any plan must be economically and socially orientated. The second is that the educational system should be a coherent whole with a functional interrelation between its sectors if it is to work efficiently. Third, although there exist certain necessary technological relations between its sectors, there are substantial areas of choice as to the size, composition and interrelation of those parts, i.e., resource allocation is an internal, as well as an externally, conditioned problem for educators. Fourth, since educational planning deals with people and not commodities, it cannot be assumed that they will be passive. The preferences of parents and pupils in the end govern entry into the different educational sectors and subjects of study. Besides, education is inalienable and cannot be sold by the individual possessor of it. Planning therefore involves taking into account psychological factors and incentives. The fifth is that the demand for education falls into two parts, the one productive and the other of a "consumption" or social nature.

Measures of educational planning have to be tested against this set of facts. For example, the fourth fact (parents' and pupils' preferences) means that the manpower approach to educational planning can never be sufficient. It is not possible to envisage a world in which preferences happen to be identical with needs. So long as freedom of choice of profession exists and academic freedom in respect of subjects of study, plans cannot be based on the hypothesis that educational supply and economic and social demand can be identical. Education must therefore always be planned to a certain extent in excess of occupational demand, just as full employment has to be planned to allow for frictional unemployment.

There exists no long-standing tradition of close application of the principles of resource allocation to education. If educational systems are viewed as "industries" or "services" in the economic sense, it emerges that there is substantial room for an increase of output by rearrangements of physical facilities, adjustments of curricula, increased vocational guidance, etc., without a reduction of standards. These inefficiencies in resource allocation are not due to lack of social conscience on the part of educators, but rather to the opposite: they are an accurate reflection of the demands which society has hitherto placed upon them. The new factor is the belated "discovery" in the last few years of the extraordinarily important role education plays in national policy, whether it is a matter of economic and social development, or one of maintaining a particular ideology and level of scientific development in a competitive struggle of ideologies. The sudden revealed demands for education go so far beyond what has ever been experienced over the same periods of time before that the objectives can only be reached by new means.

The task for the technician in the science of planning is to assemble the data and show their implications under various political, social and economic hypotheses. Planning of any kind is impossible, however, unless objectives are reasonably clearly specified, can be regarded as given for a suitable period of time, and are of a kind that can be achieved by planning. Specification of the objectives arises at the early forecasting stage, since the technician has to have a number of minimum political assumptions on which to proceed. The final objectives should be fixed when the forecasts have been produced on alternative hypotheses and their consequences estimated. At present, the precision of definition of educational ends required for detailed planning is frequently absent at both the forecasting and the decision stage.

As regards the time period for planning, five years is usual for economic planning on the basis that, apart from a crisis, electoral opinion and world conditions can be expected to remain foreseeable during that time. The planning of education, however, requires a time perspective of fifteen years, since this is the time it takes to create the human and physical resources for the operation of educational systems. This awkward difference in time period is partially offset by the modern tendency of economic plans to survive changes of government and to be carried on by civil services and technocrats leading to "perspective planning" based on long-term forecasting. A further offset is that both the number of young people who will enter the labour force in fifteen years' time and those who will enter it at the end of their higher education at the age of twenty-one (this year's babies and this year's school entrants at six), can be determined in advance, since both groups are already born. The time period does not therefore present an insoluble problem in relating education to economic and social development, though it presents some special difficulties.

The question arises as to the feasibility of achieving the aims of educational policy by planning, since clearly not all of them can be so achieved. Fortunately, there is room for many different degrees of educational planning according to the nature of the society involved, and it is not necessary to envisage the calamity of a vast bureaucratic control of the scholastic profession. Some will rely on more technocratic or centralized methods of collecting information; others may base themselves on past experience, or on data obtained from new surveys regarding regional and local preferences of pupils, parents, school leavers and the demands of employers. The area which has been least studied, despite a certain burst of activity in the last two or three years, is the means of relating educational planning to economic and social development. In this area, the economist can help on two levels of analysis. First, as regards the problems of cost and financing and the impact of the educational system upon the national output of goods and services, i.e., cost benefit relationships falling under "the measuring rod of money." Second, in so far as educational planning involves 'a relationship between a multiplicity of ends and scarce means that have alternative

uses' (Lionel Robbins' definition), the economist can aid the educator to determine the interrelationships which will maximize the use of educational resources for educational ends. Both levels of analysis are dependent upon there being substantial areas of alternative use of resources and of choice and substitution.

The educational system itself is not, of course, substitutable. Every society must have an educational system, and no civilized society is known today to spend less than about 1 per cent of its gross national product on education, and none more than about 6 per cent. Between these two percentages, however, important possibilities of resource substitution arise, not only as regards the size of the educational effort as compared with other programmes, but inside the educational system itself. In terms of social development, education is in competition for scarce resources with health and housing programmes. On the economic side it competes with other infrastructure services like transport, and with the formation of physical capital. A prima facie area of substitution is the amount of training to be undertaken in the formal education system, as compared with the amount to be undertaken in employment in industry.

There is an important area of possible substitution in respect of teaching methods, techniques and aid. These items cover the technology of education -- radio and television as compared with direct teaching, the cost of facilities, the use of buildings on a shift basis, etc. In respect of the financing of education also, alternatives of choice arise as to sources to be tapped -- central or local, governmental or private, voluntary or compulsory, or both. Then there is a crucial choice facing the over-all economic planner, i.e., the industrial technology to be introduced to carry out the development plan: whether this should be labour intensive or capital intensive, and whether (of particular interest to the educational planner) it should be "education intensive" or otherwise. In coming to decisions on such choices, clearly the planner must know the potentiality of the educational system of his country and the cost of remodelling it, since this will affect the cost benefit ratios of the different alternatives. The educational planner has to contribute to the making of this choice.

Finally, there are many choices as to selection procedures and criteria for admission to the different educational levels which will influence the supply of students, costs, and standards required for economic purposes to respond to the social demand for education. Choices exist also as to the extent to which each level may be treated as an end in itself, or should be regarded as a stepping-stone in a selection process. Is primary education ever an end in itself for the majority of people in a poor country, or must there always be provision for those who wish to and can go on to higher levels? The economic and social consequences of such choices have to be evaluated as part of the planning process. Similar issues needing evaluation are what is the

appropriate level of "wastage" in respect of each level or type of system, and to what extent "drop out" is the necessary price of widening opportunities for education. The figures of "wastage" for African educational systems as a whole amount to as much as 20 per cent of the enrolment. Figures for Niger show that, from the first to sixth year of study, 54 per cent of boys and 65 per cent of girls abandon the primary school course.

Care should be taken not to set rigid systems and standards and then to regard short falls in achieving them as failures. Short falls may be of two kinds, those caused by standards being set in excess of the possibilities of the teaching facilities (i.e., bad planning), and those which are a legitimate result of the interaction of the educational system and the socio-economic environment. The African "wastage" contains both elements. What may be called "legitimate wastage" relates to children and young people who drop out of education in order to meet the economic and social needs of their environment, family duties, etc. Studies involving both educators and sociologists are needed to analyse the problem of legitimate wastage, a phenomenon best described by a neutral phrase such as "frictional adjustment between the education system and the environment."

The formulation of educational plans must take into account substitution possibilities at two stages: (a) keeping as independent the relationships which flow from given national policies, and working only with the other variables; and (b) testing the implications of changes in these relationships themselves.

The number of variables to be included is usually limited by lack of data, and an important task lies before educational statisticians to improve this situation. In practice, choice is limited by the prevailing constraints and the time taken to overcome them. Suppose a country has an educational policy of making all its adult citizens literate in x years, and of securing compulsory primary education of, say, six years' duration for all its children in y years. A new factor is introduced in the form of a development programme to increase the pace of industrialization, which would call for more secondary and technical education. Under the original hypothesis the planner would examine the resources available and say whether the requirements could be met or what the short fall would be. Under the new hypothesis, the problem would be to assess the effect of a shift in the combination required for the industrialization programme. It might lengthen the period during which the original ends have to be achieved. Alternatively, it might shorten the period because of the increased revenue obtained through the industrialization programme.

What are the means available for finding answers to the choices posed, and what are the limitations to them? Decisions on the optimum allocation of national resources to education, as compared with direct

investment of production in other social services or physical capital, lie outside the economics of education and are the concern of the economic planner. But both the over-all planner and the educator are interested not only in the size of the educational investment but in its efficiency, since a reduction of unit cost is equivalent to an increase of resources allocated. Many educational systems use their resources below capacity, partly due to the socio-economic environment and to traditional attitudes, which consider that education falls outside economic allocation approaches, and partly from the failure to adopt adequate criteria of selection. In one country, out of 100,000 who sat for the matriculation examination in 1959 only 3 per cent passed, and only 30 per cent of students at the universities passed their annual examinations.

The process of integrating the educational plan with the over-all economic development plan presents special difficulties. The strategy of the over-all plan may be one of balanced growth or of moving from one selected imbalance to another. The educator may be asked to adjust his planning to a strategy based on the belief that the country is on the threshold of a development stage which has to be reached by a special push in a particular sector of investment. This will involve careful study as to whether education, as a piece of planned social infrastructure, can or should take part in such "special pushes," except in respect of certain limited parts of the systems. At this point, substitution processes, such as in-service training, have to be studied and the degree of sacrifice assessed. The first step is to find a common discourse, preferably in quantifiable terms, between educational planners and over-all economic planners to bring about the necessary integration. This involves training programmes in which educators will be co-opted into the processes of economic development planning and economists will be initiated into the problems of educational planning. It involves also the establishment of planning units concerned with these processes, both in the central planning organization and in ministries of education.

In estimating the forward relation of educational planning to economic and social development, the following stages are necessary:

1. Making projections of the future size and age composition of the population and the movement of the economy in as much detail as possible by sectors. Failing detailed projections, at least a profile of the economy is necessary based on two or three broad hypotheses.

2. Turning the economic data into requirements in respect of different occupations. Alternatively, if there is sufficient data to carry out manpower surveys, an estimate of the future occupational composition of the population can be made from the forecasts of employers of the need for qualified manpower, and from the extension of existing trends of employment. Where this is possible it is also an index of the economic profile required under 1. Many difficulties are involved in manpower surveys of this kind. The number of employers who can look forward

fifteen years is limited. There is a tendency for employers to exaggerate their forecasts in periods of labour scarcity and to minimize them when labour is abundant, while professional associations tend to do the opposite.

3. Turning the occupational data so obtained into its educational component. The number of classifiable occupations is of the order of 1,350. Difficulties which arise in this form of projection are that there are no fixed relations between occupations and education, except over broad categories and in a limited number of professions. Classification of skills by educational components can produce 300 items in advanced economies. But for practical planning purposes, the educational classifications of occupations can be reduced to between ten and fifteen. Even smaller groupings are possible, according to the degree of detail which the other factors in the planning process permit in any given case. An addition must be made for non-workers.

4. Forecasting the measures required to produce these educational characteristics in the population through schools, institutions, and on-the-job training.

5. Determining the optimum relation which should exist between the different sectors of the educational system in order to produce the required numbers of students at the different levels.

6. Studying the incentives required to guide pupils into those particular studies and school-leavers into those occupations, including changes in the wage structure and prestige of different occupations (as we saw above, students' and parents' preferences have to be foreseen and guided).

7. Forecasting the required flow between the levels, on alternative pedagogical standards and selection criteria.

8. Studying the likely results of alternative technologies of teaching. The number of teachers per class will influence the amount of teacher training required and the size of the investment in secondary and higher education.

9. Establishing what elements have to be maintained or introduced into the educational system to exploit fully the "external economies" flowing from investment in education, such as research, the development of elites and innovators, the formation of stable responsible middle classes, and the promotion of managerial, entrepreneurial and social skills in the population.

10. Assessing the unit costs of different types of educational technology and means of developing the educational system, and comparing them:

e.g., large colleges or small; should new universities be placed in dense population areas or spread out over the country in small towns?

Clearly the forecasting required goes well beyond that derivable from even the best economic projections or manpower surveys. Such projections and surveys have to be seen against a pattern of norms derived from experience and country studies. Among such norms are the following: (a) the proportion of gross national product devoted to education both in total and (if possible) by sectors; (b) the proportion of public revenue so spent; (c) the proportion of public investment made in education and its different sectors; (d) the proportion of investment in education and its different sectors as compared with over-all investment; (e) the proportion of the population enrolled at the different educational levels; (f) the same proportion corrected in the light of information as to attendance, and (g) the proportion of the student population receiving instruction in different levels and types of education. Naturally this information has to be interpreted in the light of the special conditions of each country, and should always be cross-checked with the results of manpower assessments and occupation and educational requirements deduced from the economic perspective. It is possible also to establish patterns and trait clusters of educational development by comparisons between countries at various income levels.

Once a pattern of educational development is adumbrated by the methods indicated, the question of finance has to be faced by the planner. Even though the educational plan arrived at may be economic in the sense that it is necessary for development and would not involve an excessive allocation of resources which could be better used elsewhere, it does not follow that the necessary finance can be found. Because education has to be largely financed from current revenue, since teachers' salaries make up three-quarters of the cost, financing possibilities depend on the efficiency of the fiscal system. Here again, reference to norms is helpful. Low-income countries raise on the average about 14 per cent of their national income in revenue, while high-income countries raise about 21 per cent. The part of the financing that requires foreign exchange, which may amount to 5 to 7 per cent of the average over-all educational plan, is dependent on the country's balance-of-payments position. The educational plan which has been adumbrated may, accordingly, have to be cut back to the extent that the fiscal system cannot be improved or foreign exchange obtained, or means found to reduce the call on revenue or foreign exchange. Means of reducing the demands on the public budget consist of extending the fee-paying sector of educational finance, increasing voluntary teaching, e.g., in literacy campaigns, discovering untapped local sources of financial initiative through special contributions from industry, and special local taxes, and by obtaining outside bilateral or multilateral aid.

Apart from cases where governments make direct contributions to the budgets of other countries (e.g., metropolitan countries to their ex-colonial territories), international grants and loans are at present envisaged in terms of financing tangible capital, such as buildings and

teaching equipment. But over-all loans may contain an educational component, and this aspect of international financing has not yet been fully studied or developed. At present, the educational planner has to look to internal sources for the overwhelming proportion of finance and to external aid for technical assistance and for physical equipment. Grants or loans for physical equipment from abroad will usually be restricted to the proportion of finance for which foreign aid is required, and to cases where it can be shown that the real resources exist for carrying out the plan envisaged if the fiscal resources can be increased to bring them into action. It does not follow, of course, that the whole of the amount of the foreign exchange involved in such a loan or grant would accrue to the educational system. Any foreign currency beyond the actual foreign exchange component of the educational plan would have to be distributed according to the country's foreign exchange priorities, and the project compensated in internal currency. The educational planning process involves integration of this kind with over-all financial planning.

It will be seen that the final educational plan must be feasible pedagogically; it must attempt to "optimize" the contribution of education to economic and social development; it must show the necessary priorities as between its sectors as well as its priorities in the country's over-all plan. It must also give a timetable for carrying it into effect, and it must contain a sufficient area of manoeuvre so that it can be reviewed periodically and adjusted.

It will have been noted that the planning of education in relation to economic and social development involves many disciplines: education, economics, sociology, statistics, psychology, administration, as well as a closer definition of the political goals of education. The extent to which these disciplines can be called upon in the precise planning of education, as distinct from their exerting a general influence on the judgments of the planners, depends upon their capacity to provide measurable data for planning purposes. Much more research is required in all of the disciplines concerned, as well as a closer definition of educational aims.

It is necessary to extend the link between studies by economists and those in other disciplines, such as sociology and psychology, deeply concerned in the educational process and able to contribute by techniques of social survey, public opinion polling, etc. Development economists are finding themselves increasingly involved in contacts with those disciplines and there has been a great advance in empirical sociology since Professor Hicks pointed out that before the economist can apply his analysis he has to look round for a sociologist and 'usually there isn't one.' The use of the various disciplines will vary according to the different stages of the planning process. In the quantitative aspects of planning, economic and demographic techniques come to the fore; but at the stage when the ends to be taken as given are discussed, and in evaluating the impact of the plan at the level of the individual and the community, there is a very special role for sociology, political science and psychology.

SOME ESSENTIAL REQUIREMENTS IN EDUCATIONAL PLANNING

T. Balogh and P. P. Streeten

[From "The Coefficient of Ignorance," Bulletin of the Oxford University Institute of Economics and Statistics; Oxford, Basil Blackwell, Volume 25, No. 2, May 1963, pp. 105-107.]

[This is the more general concluding section of a technical article in which the authors criticize various methods of calculating the contribution of education and training to productivity and economic growth. They find most recent work on this problem characterized by concealed value judgments and by "misplaced aggregation" and "illegitimate isolation."]

These are excerpts from the original article.

The formulation of long-term plans of economic development for underdeveloped countries which must incorporate the planning of education, must meet, in addition to conceptual [definitions concerning the costs and benefits of education], certain other requirements.

A long-term plan must reflect study of how and how far traditional educational patterns have contributed to the failure of social and economic progress in the past. The study must discover whether the attitudes which are hostile to economic progress have been the result of a specific structure of education, and what modifications

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of that structure are needed to accelerate development. In both the formerly British and the formerly French territories, a disdain of technical education has grown up which has been strengthened by the low status of technical schools and the restricted openings for their pupils. So long as the Civil Service and the appointments controlled or influenced by it are the preserve of the non-technically educated, the best ability will be diverted into non-technical education. This will both justify and strengthen the initial disdain and render progress more difficult. On the basis of this study of obstacles, a new educational structure can be planned which will raise the status of those who meet the requirements of accelerated growth. Thus, both diversion of the best talent and an increase in the supply of the required skills will be achieved.

The second requirement is a concrete idea of the size and composition of long-term development, based upon knowledge of the concrete endowments of the economy and a clear formulation of specific objectives and ideals. From these the future pattern of manpower distribution can be derived, and thus an indication of the measures and the timing needed for educational development. The long gestation period of much education and training requires that starts be made now in order to reap results after 15, 20 and 25 years. Neither general formulae of ill-defined and irrelevant aggregates and their unverifiable relationships, nor even the occupational composition experienced at comparable stages of development in advanced industrial countries are of much use. Past experience relates to spontaneous growth (or its failure). It cannot be assumed that deliberate efforts to accelerate growth by a series of policies would show the same requirements. The problem is to overcome specific difficulties, which differ from country to country and from time to time, while historical experience from now advanced countries points to broadly similar categories. From the long-term plan, the quantities and types of educated personnel in detailed categories can be derived. Since changes in technology, demand, international policies, etc., will continually change these requirements, the long-term plan should be a "rolling" plan, reviewed continually and at least annually, and adapted to new information. It should provide the framework for the 5-year (or seven-year) plans and for the annual budgets, so that policies which will not bear fruit until after more than five or seven years are not neglected. To avoid superimposing new rigidities upon often already rigid economies, all three plans -- the annual budget, the [operational] plan and the perspective plan -- should be reviewed continually, and carried forward, so that they apply always to the next year, five years, fifteen years.

A number of measures will have to be taken which lie outside the scope of conventional economic considerations. Thus, if training takes place abroad, the return of the trained men will have to be insured; if they have acquired the required skills, it will be necessary that they

use them in isolated rural areas and reluctance to live there has to be overcome; the type of training provided must fit the available technology and not be appropriate to a more advanced form; etc.

Because of the narrow margins of tolerance and the closeness of many underdeveloped countries to misery and starvation, it is crucially important that minimum needs be estimated and that the required combination of measures be planned and executed. Failure to execute complementary measures can spell disaster. The isolation of "educational" expenditure distracts attention from the urgent need, not only to select the right type of education, but also to combine it with the provisions of better seeds, drainage and fertilisers, with land reform and price stabilisation, with improvements in transport and birth control, with a reform of recruitment to the Civil Service and business management. The waste involved in not planning for the required complementarities, and pushing education too far, can be catastrophic.

The detailed planning of education and training will have to make explicit political judgments about the distribution of the benefits between classes and over time. One of the costs of raising output later above what it would otherwise have been is the use of resources now to support the educational system required at a later stage. Since the social rate of time discount will tend to be high in countries where many are on the verge of starvation, extreme care is required in the expenditure on education. Financially conservative advice will be politically difficult and unpopular and may in many areas give rise to accusations of racial discrimination. Efforts are therefore needed to remove prejudices against quick-yielding and applied types of education. Education has to be used to get the right kind of education accepted. The larger the area for which planning is initiated, the greater will be the scope for, and the less will be the danger of, indivisible highly specialised institutions which are expensive and not directly related to current progress, but are imposing and prestige-yielding. The division of labour, in this field, too, is limited by the extent of the market, and the larger and richer the area the more scope is there for specialised units conducting "basic" research. Although it is true that the practical use of "pure" research is unpredictable and that conscious direction of education and research to the "applied" field does not always yield higher returns earlier than some initially "pure" research, it cannot be denied that it takes time between a discovery, its application by engineers and its exploitation by entrepreneurs and their followers. Only a large and rich economy with a low rate of time discount can afford to devote much energy to basic or pure scholarship. It must not be forgotten, moreover, that the adaptation of <u>known</u> techniques by poor developing countries could raise substantially their real income. Training rather than research would yield maximum returns.

The choice of the distribution over time is related to the choice between types of education with a high ratio of instrumental to independent value and those with a low ratio. The pursuit of knowledge for its own sake, wherever it may lead, is highly valued in many cultures, but it is not costless. This decision will in turn depend upon the political judgments made about the rate of growth of real income compared with that of leisure and the form in which leisure is to be enjoyed. These political value judgments will not be given once for all, but will themselves change as the plan is executed. But without a specification of concrete valuations and concrete manpower requirements, the calculation of "returns to education" suppresses these value judgments in a pseudo-scientific formulation, buries the factual judgments in misplaced aggregation, and severs crucial connexions by illegitimate isolation.

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INTERNATIONAL INSTITUTE FOR
EDUCATIONAL PLANNING

The International Institute for Educational Planning (IIEP) has recently been established in Paris as an autonomous agency under the auspices of UNESCO and with financial support from the latter, the International Bank for Reconstruction and Development and the Ford Foundation. The purpose of the IIEP is to assist economic and social progress by improving the planning of education primarily, though not exclusively, in the less developed countries of Africa, Asia and Latin America. The Institute's activities will consist largely of research and training in the field of educational planning oriented toward assisting national governments, international agencies, and private institutions to expand and improve education.

The IIEP will have a staff of its own; will offer facilities for research and training to qualified educators, economists, and others concerned with the development of education; and will cooperate with other institutions and organizations in research and training activities.

The Institute is supervised by a multinational Governing Board under the Chairmanship of Sir Sidney Caine, Director of the London School of Economics. The Director of the Institute is Dr. Philip H. Coombs, formerly U.S. Assistant Secretary of State for Educational and Cultural Affairs. The Institute is now in the process of recruiting staff and developing its own program of research and training activities in accordance with a set of basic policies adopted by the Governing Board at its first meeting in July 1963.

SOME RECENT PUBLICATIONS ON
EDUCATIONAL PLANNING AND DEVELOPMENT

"Economics of Education," International Social Science Journal, UNESCO, Paris, Volume XIV, No. 4, 1962, 173 pp. US$2.00.

In addition to the two articles excerpted above, this issue contains other papers on education in the less developed countries dealing with the social returns from education, the concept of human capital, teaching methods and their costs, and administration and the economics of education.

Forecasting Educational Needs for Economic and Social Development, by Herbert S. Parnes; OECD, the Mediterranean Regional Project; Organization for Economic Cooperation and Development, Paris, 1962, 113 pp.

This monograph is based on the experience of the Mediterranean Regional Project in planning for the accelerated development of education in the less developed countries and regions of the OECD area. The intention is to explain those aspects of the Mediterranean experience which are relevant to the needs and limitations of less developed countries in other parts of the world. The subjects covered are methods of estimating manpower requirements and supplies and their educational implications; establishing educational targets; the cultural aspects of education planning; and the techniques of preparing an educational plan which integrates quantitative and qualitative considerations.

H. Correa and J. Tinbergen, "Quantitative Adaptation of Education to Accelerated Growth," Kyklos; the List Society, Basle, Vol. XV, Fasc. 4, 1962, pp. 776-786.

Utilizing input-output techniques, the authors explain a simplified mathematical model for determining educational targets based on manpower requirements and for ascertaining their development policy implications.

Educational Planning: Research in Comparative Education; published jointly by the International Bureau of Education, Geneva, and UNESCO, Paris, Publication No. 242 of the International Bureau of Education, 1962, LIII and 193 pp., US$3.00.

This report prepared for the twenty-fifth International Conference on Public Education in Geneva in 1962 contains a questionnaire to national governments on the organization, staffing, and future plans for educational planning; the replies from the Ministries of Education of 75 developed and less developed countries; and a comparative analysis of the answers prepared by the Secretariat of the International Bureau of Education.

Development of Education in Latin America -- Prospects for the Future, Final Report of the Special Commission on the Programming and Development of Education, Science and Culture in Latin America; Organization of American States, Washington, D. C., May 1963, xii and 198 pp. (OEA/Ser.K/v.3.1, Doc. 6).

This is the report of a group of experts charged with the responsibility for preparing an action program to carry out the educational goals of the Punta del Este Charter of the Alliance for Progress. Specific recommendations for national and international programs are made with respect to primary, secondary and university education; curricula; vocational and adult education; construction needs; administration; research; and sources of financing. Resolutions based on these recommendations were adopted by the Ministers of Education at their Third Inter-American Meeting at Bogota, Colombia, in August 1963.

UNESCO Series

UNESCO publishes two series of pamphlets on educational development. The first, Education Studies and Documents, presents monographs and collections of papers on educational developments and techniques of general interest. Among the most recent are #45, Elements of Educational Planning, 1962, US$0.50; #46, Second World Conference on Adult Education, 1962, US$0.50; and #48, New Methods and Techniques in Education, 1963, US$1.00.

The second, Education Abstracts, is published quarterly. Each number consists primarily of abstracts of publications on specific subjects in the field of educational development. Annual subscription: US$2.00.

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